CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS.

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IMPORTANT WORK NOTED IN THIS ISSUE.

Railways.
Arizona, Mexico & Gulf of California.
Southern New England.
Turkey.

Electric Railways.
New York, N. Y.
Atlanta, Ga.
Des Moines, Iowa.

Light and Power Plants.
Power plant, Akron, Ohio.
Power plant, Cisco, Utah.
Cable, Winnipeg, Man.

Bridges.
Bridge, Baltimore, Md.
Bridge, Sacramento, Cal.
Viaduct, Toronto, Ont.

Buildings.
Hotel, school, New York, N. Y.
Station, Minneapolis, Minn.

Water Supply—Irrigation.
Water pipe, Saugus, Mass.
Water-works, Pittsburg, Kan.
Filter plant, Montreal, Que.

Sewers.
Sewer, Brooklyn, N. Y.
Sewer, Harrisburg, Pa.
Sewerage system, etc., Evansville, Wis.
Sewer system, Hoquiam, Wash.

Streets and Roads.
Paving, etc., New York.
Paving, Reading, Pa.
Grading, etc., Pasadena, Cal.

Manufacturing Plants.
Bush Terminal building, New York.
Pulp Mill, Eureka, Cal.

Miscellaneous.
Barge Canal, Albany, N. Y.
Dry dock, Bremerton, Wash.
Pier, Oceanpark, Cal.

RAILWAYS.

ARIZONA, MEXICO & GULF OF CALIFORNIA.—Contracts have been awarded for the construction of a line from Silverbell, Ariz., to Port Lobos on the Gulf of California, a distance of 200 miles. CHARLES J. LANTRY, of Kansas City, and E. J. SCOTT, of St. Louis, have secured the contracts, and it is expected that the work will be completed by the end of next year. As noted on May 12, "this company has been formed with a capital stock of $13,500,000 gold, for the purpose of building this line, and the organization is to be followed by an application to the Mexican Government for a concession to cover that portion of the proposed road through Mexico, and the establishment of extensive port facilities at Port Lobos, including a 2,900-ft. pier, it is announced. The road is being promoted by the same financial interests that compose the Development Company of America, 11 Pine St., New York. The railroad will connect Tucson, Ariz., with Port Lobos, Mex., on the Gulf of California, and will be about 200 miles long. Benj. P. Cheney, Ames Bldg., Boston, is Pres. The Arizona Mexico Construction Co., 11 Pine St., New York, has been organized to construct the line. F. M. Murphy is Pres."

ATHENS & TELLICO.—We are officially advised that the McDOWELL CONSTRUCTION CO., of Knoxville, Tenn., has been awarded the contract for filling in the trestles along this line. The company intends to build a 1½-mile terminal spur into Athens, Tenn. On July 7 we noted that "$75,000 would be expended immediately for roadway improvements on this railway. Trestles will be filled, grades revised and other work done to improve the trackage of the road. Plans are now being perfected for beginning this work at once, and it will be rushed during the summer period. It is probable that further appropriations will be made later on for additional changes in the physical condition of the road. The Athens & Tellico Ry. was recently purchased by the Louisville & Nashville R. R. Co., and it is maintained as a subsidiary company to the L. & N. corporation. J. E. Willoughby, care of L. & N. R. R. Co., Louisville, Ky., is Ch. Engr."

ATLANTIC, NORTHERN & SOUTHERN.—On July 1 a contract for grading was let to SHUGGART & BARNES BROS., of Des Moines, Iowa, for work on an extension of 38 miles from Atlantic, Iowa, south via Grant to Villisca. The company now operates a 17-mile line from Atlantic north to Kimballton. The maximum grades will be 1.75% and maximum curvature 5°. Noted on Nov. 11, '09.

CANADIAN NORTHERN.—Plans of the line through the mainland of British Columbia from the lower Fraser terminals at Port Mann to a point on Moose Lake, eastward of Tete Jaune Cache, have been filed with the Chief Commissioner of Lands and formally accepted. The first section includes 37 miles from Yale, south along the Fraser River to Chilliwack. The second section extends from Chilliwack to New Westminster bridge. From Kamloops the line follows the North Thompson River 156 miles to its headwaters. Plans for the section from the North Thompson to McLennan River have not yet been filed. The eastern line is to connect with this section, and will extend from the headwaters of Canoe River northerly to about ten miles south of Tete Jaune Cache, at the junction of the McLennan River with the Fraser River, thence to continue east a total of 33.6 miles. The plans cover about 400 miles, but do not include about 30 miles on the mainland. A surveying party is at work on the northern shore of Cowichan Lake and another is south of that point. It is probable that the reports will be ready at once, so that the route may be decided and contracts let. T. Turnbull is Asst. Ch. Engr., Winnipeg, Man.

CENTRAL R. R. OF NEW JERSEY.—Ten miles of additional tracks are to be built in the interchange yard, soon to occupy the entire space between Allentown and Bethlehem, Pa. Cost, $1,000,000. J. O. Osgood, of New York, is Ch. Engr.

DAKOTA, KANSAS & GULF.—Surveys for this line have been finished, and the right-of-way is to be secured at once. The plans call for a line from Beloit, Kan., northwest to Kearney, Neb., about 120 miles. The maximum grade will be 26 ft. to the mile and the maximum curvature, 3°. The work will be heavy south of the Republican River, and it will be necessary to construct ten steel viaducts, one of which is to be 1,500 ft. long, and another 500 ft. In addition, there will be bridges crossing the Republican and Platte rivers. W. H. Mitchell is Pres., Beloit.

GRAND TRUNK RY.—See item under Southern New England.

KANSAS CITY, SAPULPA & SOUTHWESTERN.—The route is being resurveyed for construction of this line which was gone over two years ago, at the time it was chartered, from Joplin, Mo., southwest through Sapulpa to Shawnee, Okla. It is probable that the old line will be established again and the original survey adopted for the route. Between Sapulpa and Shawnee the proposed line will tap one of the most fertile farming sections of the State, especially adapted to potatoes and truck growing. W. H. Henderson is Ch. Engr..

KNOXVILLE, SEVIERVILLE & EASTERN.—An extension of 15 miles is to be built from the present eastern terminus at Sevierville, Tenn. W. A. Seymore, Knoxville, is Ch. Engr.

MEXICO.—The Mexican Government has granted a supplementary concession to A. F. Tarin, of Hermosillo, Mex., and associates for the construction of a railroad in northwestern Mexico. The original concession obtained by the same interests provides for the construction of a line of road from Ures to Kino Bay, on the Gulf of California via Hermosillo, a distance of about 150 miles. The amended concession authorizes the construction of a line from Ures to Agua Prieta, on the United States-Mexico border, about 200 miles. It is stated that both of the lines covered by the concession will be built. As a guarantee that the terms of the concession will be complied with Mr. Tarin and associates have deposited $28,000 of Government bonds. The project is being financed in Holland. The routes of the proposed roads are through a territory that is very rich in mineral resources. Noted on June 30.

MISSOURI, OKLAHOMA & GULF.—Two surveying parties are laying out the route of an extension from Muskogee, Okla., to Kansas City, Mo., touching Joplin, Mo., and Pittsburg, Kan. A bridge is to be built over the Red River. Construction work will begin as soon as the surveys are completed. J. J. Harrison, Durant, Okla., is Ch. Engr.

PACIFIC & IDAHO NORTHERN.—We are officially informed that the following contracts for building an extension from Evergreen, Idaho, northeast to New Meadows, 15 miles, have been let: Grading, to MANEY BROS.; ties and bridge timbers, J. E. FOGG, of St. Anthony, Idaho; rails, etc., ILLINOIS STEEL CO., of Joliet, Ill. Noted last week. The surveys have been made and the greater part of the right-of-way obtained. The capital has been secured. Construction will be mountain work. Gravel ballast, 2,700 ties to the mile, 65-lb. rails and 22-in. continuous joints will be used. E. M. Heigho is Pres. and Gen. Mgr., Weiser, Idaho; Lee Highley, Weiser, Idaho, is Ch. Engr. Noted on July 21.

ROCK ISLAND, TEXICO-FARWELL & GULF.—S. H. Withers, Secy., Texico, N. Mex., advises us that a line will be built from or near Pyote, Tex., to a connection with the Chicago, Rock Island & El Paso Ry. near Tucumcari, N. Mex., 285 miles. The work will be new and light. The surveys have been made and a part of the right-of-way obtained. Contracts for construction are now open. M. J. Healy is Pres., Texico, and W. B. Wynn, also of Texico, is Ch. Engr. Further reports state that the company will file its Texas charter at Austin soon. It is planned by the company to construct its Texas line from Texico to some point on the Texas & Pacific, probably Midland or Stanton, and to extend it to Corpus Christi, on the gulf coast, later on. From Texico to a connection with the Texas & Pacific is about 180 miles. The people of Texico have raised a bonus of $100,000 in cash and property and donated 20 acres for terminals and free right-of-way through the county in aid of the project. It is provided in the contract with Texico that the shops, round-house and general offices of the road shall be located there. The route of the proposed road through Texas will be west and south of the Texico-Coleman cut-off of the Santa Fe. The proposed line will traverse the ranch of the Texas Capitol Syndicate, which originally embraced 3,000,000 acres.

ROME & NORTHERN.—It is the intention to build an extension 34 miles long to Tunnel Hill, Ga. Connections will be made with the Nashville, Chattanooga & St. Louis at Tunnel Hill and with the Southern, Central, and Nashville, Chattanooga & St. Louis at Rome, Ga. H. M. Smith is Ch. Engr., Rome.

SOUTHERN NEW ENGLAND.—In an order issued by the Massachusetts Board of Railroad Commissioners on July 12 a certificate of exigency is given to the Southern New England Railroad Corporation, which authorizes that company to build a railroad from Palmer to the boundary line between Massachusetts and Rhode Island. The Southern New England is a Massachusetts corporation, created by the Grand Trunk Ry. System to build a connecting line across a part of Massachusetts, "beginning at a point on the line of the New London Northern R. R. in the town of Palmer in the County of Hampden, and extending in and through said town of Palmer, and the towns of Monson and Brimfield in the County of Hampden, and the towns of Sturbridge, Southbridge, Dudley, Webster, Douglas, Uxbridge and Blackstone in the County of Worcester, to a point on the line between the Commonwealth of Massachusetts and the state of Rhode Island in said town of Blackstone," as stated in the certificate. C. M. Hays is Pres., G. T. R., Montreal, Que.; H. G. Kelley, Montreal, is Ch. Engr., G. T. R. Noted on July 9 and July 7.

UTAH.—The Utah Copper Co., controlled by C. M. McNeill and associates of Colorado Springs, Colo., will announce the issuance of $2,500,000 of bonds to provide for the construction of a railroad through the Bingham Canon, Utah, for the purpose of hauling ores of the company. The line upon which the engineers are at work will be 17 miles in length, according to press reports. It is estimated that it will cost $2,500,000 to build the road, and that the company will save between $600,000 and $700,000 a year by owning its own tracks.

WASHINGTON-VIRGINIA RY.—Incorporated in Virginia to build a line from Bluemont, Va., southeast to Vienna, 50 miles. M. E. Church is Pres. and Gen. Mgr.; G. B. Fadeley, Vice-Pres., and L. L. Northrup, Treas., Falls Church, Va.

WRIGHTSVILLE, ADRIAN & LYONS.—This company, which was recently organized in Georgia to build from Wrightsville, Ga., southeast to Lyons, has amended its charter increasing the capital from $100,000 to $1,000,000 and providing for an additional line from Wrightsville northwest to Milledgeville through Johnson, Washington and Baldwin Counties. The plans include an extension from Lyons to Brunswick. Grading work has been finished on six miles. T. J. James is Pres., Adrian, Ga. Noted on June 2.

TURKEY.—We are officially advised that the Ottoman-American Development Co., 11 Pine St., New York, intends to construct a standard gage railway, approximately 2,000 miles long, in Turkey. It will connect the following points: Lake Van, the Persian border, Moussul, Sivas, Dierbekir, Bitlis, and a terminal port to be built on the Mediterranian Sea, where piers and general port works will be constructed. A concession has been applied for and probably will be granted, and the construction work started at the end of the year. C. M. Chester, Jr., is Secy. of the company, 85 Liberty St., New York, and the MacArthur Bros. Co., 11 Pine St., New York, is interested. At present A. T. Chester is in Constantinople in charge of obtaining the concession, and J. W. Colt is at work locating the proposed line. Both of these gentlemen may be addressed in care of the American Embassy at Constantinople.

ELECTRIC RAILWAYS.

BOSTON, MASS.—The State Board of Railroad Commissioners has issued a certificate, a part of which states that "public convenience and necessity require the construction by the Boston & Western Electric Ry. Co. of an electric railroad as proposed in its agreement of association, beginning at a point at or near the western terminus of the tracks of the Middlesex & Boston Street Railway on upper Main St., in the city of Waltham, the towns of Weston, Wayland and Sudbury and the city of Marlboro to a point on Main St. (now Howe St.) in said city, with a branch line extending from a point on the main line in South Sudbury, so called, through the town of Sudbury and into the town of Maynard to a point at the junction of Walnut and Main Sts."

NIAGARA FALLS, N. Y.—Permission has just been granted by the Common Council to the Frontier Electric Railway Co. to cross various streets in this city, from the easterly city line to the Portage Road. It is stated that the road would do little or no local business as the western terminal would be Portage Road unless a right-of-way or permission to run over the tracks of the International railroad is hereafter acquired. The purpose is to construct a fast line to Buffalo and that a local line would parallel it. The company now has part of the right-of-way between here and Buffalo and had waited for the consent granted last night before it purchased the remainder. The Buffalo, Thousand Islands & Portland Railroad franchise, which the Frontier company has acquired, was granted 20 years ago.

CAIRO, N. Y.—The Catskill Traction Co. proposes to extend its line twelve miles from the Greene County Agricultural Society's Fair Grounds, at Cairo, westerly along the Susquehanna Turnpike to Oak Hill. W. C. Wood, Pres. Noted on Feb. 10.

NEW YORK, N. Y.—The Public Service Commission has adopted an opinion, written by Commissioner Edward M. Bassett, granting the Manhattan Three-Cent Line a certificate of public necessity and convenience to cross and operate over the Manhattan Bridge. The Brooklyn terminus of the company is to be at the Flatbush Ave. depot of the Long Island R. R. Co. and the Public Service Commission, in granting the certificate, makes the condition that on the Manhattan side of the bridge the company must make arrangements to operate crosstown to the North River. The Board of Estimate granted the Three-Cent Line a franchise in June. The Franchise Bureau of the Board is now preparing the form of contract, and this will be ratified by the Board as soon as it convenes again and the public hearing is held. It may be possible that the franchise contract will be ratified at the meeting of the Board on July 29. The route of the line, as outlined in the opinion, is as follows: "Beginning at a point in the marginal way adjacent to the North River, in the Borough of Manhattan, City of New York, at or near Desbrosses St. ferry; thence on and over the marginal way and West St. to Desbrosses St.; thence upon and along Desbrosses St. to Washington St.; thence upon Washington St. to Vestry St.; thence upon Vestry St. to Canal St.; thence upon Canal St. to and over the Manhattan Bridge and over and upon its approaches and plazas to Flatbush Ave. extension, in the Borough of Brooklyn, City of New York; thence upon Flatbush Ave. extension to Fulton St.; thence upon Fulton St. to Rockwell Pl.; thence on Rockwell Pl. to Flatbush Ave.; thence on Flatbush Ave. to Fourth Ave.; thence on Fourth Ave. to Atlantic Ave.; thence on Atlantic Ave. to Third Ave.; thence on Third Ave. to Flatbush Ave.; thence on Flatbush Ave. to Livingston St.; thence on Livingston St. to Hoyt St.; thence on Hoyt St. to and across Fulton St. to Bridge St.; thence upon Bridge St. to said Flatbush Ave. extension, and crossing such streets and avenues, named and unnamed, as may be encountered in said route, with a branch line commencing in the route above described at the intersection of Washington St. and Desbrosses St.; thence upon Desbrosses St. to Greenwich St., and thence upon Greenwich St. to Vestry St., and there connecting with the route above described." John C. Brackinridge is Vice-Pres., 95 Liberty St., New York. Noted on June 30.

GROVE CITY, PA.—ALFRED DE MAYO & CO., who have the contract for the construction of the Grove City & Slippery Rock Ry., have awarded the sub-contract for the southern end of the road to W. D. SHANOR, of Beaver, Pa. Work will be commenced in Butler County by Mr. Shanor, who will have a force of 100 men and a steam shovel in operation. In addition to the contract for three miles of line, Mr. Shanor has been awarded the contract for the concrete piers for the bridge over Wolfe Creek, south of Grove City. Noted on May 19 and June 2.

SHARON, PA.—We are officially advised that stock is being sold for the New Castle, New Wilmington & Sharon R. R. Co., which will build an electric railway, 22 miles long, connecting the points named. It will be all new work. The surveys have been made and the right-of-way has been secured to Bethel. No contracts have been let. F. T. Filer, of Mercer, Pa., is Pres.; J. P. Shaw, of Pittsburg, Pa., Ch. Engr. W. B. Anderson, George Dresch and S. C. Simonton, of Sharon, and S. D. Downs, of Greenville, Pa., are the committee to secure subscriptions of $100,000 of stock at 80 cts. Noted on March 10 and Feb. 10.

ATLANTA, GA.—Redmond & Co., of New York, have announced that they have closed a deal for the holdings of the E. H. Harriman Estate in the stocks and bonds of the Augusta-Aiken Railway & Electric Co. and allied properties. The consideration is $2,700,000. They propose to build an interurban electric link from Atlanta, Ga., to Columbia, S. C., via Augusta, a distance of 280 miles. The transfer of the properties will take place on July 29, following which, it is stated, preparations for extending the lines from Augusta to Atlanta and from Aiken, S. C., to Columbia will be started without delay.

PASS CHRISTIAN, MISS.—The Mississippi Coast Traction Co. will build an extension to Henderson's Point, seven miles from Pass Christian, it is stated. J. T. Jones, of Gulfport, Miss., and others are interested.

ALLIANCE, OHIO.—We are officially advised that the contract for constructing the line between Alliance and Akron, for the

Alliance & Akron Short Line Ry. Co. has been let to A. DE MAYO & CO., Haskell Bldg., Ashtabula, Ohio. L. C. Marble is Ch. Engr., Schofield Bldg., Cleveland. Noted on June 16.

FRUITDALE, IND.—We are officially advised that John A. Johnson, Indianapolis, Ind., has completed survey of a proposed interurban railway to Nashville, Ind., from the station of Fruitdale on the Indianapolis-Southern Railway. The line will be ten miles long, and will connect the towns of Fruitdale, Georgetown and Nashville, Ind. The right-of-way and franchises have been procured, also subsidies to the amount of $20,000. The name of the company will be the Indianapolis, Nashville & Southern Traction Co.; office at 516 Traction Terminal Bldg., Indianapolis, Ind. Bids will be received within the next 30 days for the construction, which will include a 500-ft. tunnel.

PORT BYRON, ILL.—The Tri-City & Northeastern Interurban Ry. Co. has completed the permanent survey of its line between Albany and Morrison, Ill. The surveys for the entire route are completed and construction will soon be started on this projected electric railway, which is to connect Watertown, Hampton, Rapids City, Port Byron, Cordova and Albany. J. W. Simonson, of Port Byron, is Pres.

DES MOINES, IOWA.—Right-of-way for the proposed Red Oak & Northeastern Ry. Co., from Winterset to Des Moines is being secured. From Winterset to this city the length of the new line will be 42 miles. The route is surveyed as far as the plant of the Iowa Portland Cement Co. near Valley Junction, and traffic arrangements have been reached which will enable the trains of the new line to reach the center of the city over leased trackage from that point. About two-thirds of the line from Red Oak to Winterset, a distance of 61 miles, has been secured. Most of the rest is to be taken care of by donations from residents along the line who are owners of large areas of land and who are anxious to have the road built. To secure the land for the 42 miles from Winterset to the northeastern terminus at Des Moines will require several weeks. W. L. Sonntag, of Evansville, Ind., and D. M. Dowd, of Des Moines, are the promoters. Noted on July 7.

GREENVILLE, TEX.—The proposition to grant S. A. Price, of Dayton, Ohio, and associates a 50-year franchise to construct and operate an electric street railway system here was carried by a vote of 441 to 34 in the election held here. The promoters of the project are preparing to begin the construction work at an early date.

PORTLAND, ORE.—The United Rys. Co. has awarded the contract for construction of the first 24 miles of its extension to Tillamook to PORTER BROS. This includes the tunnel at Cornelius Gap. Surveying and securing the right-of-way between the 24-mile post and Tillamook is practically completed. The located line will be extended from Tillamook to Bay City, thus giving this company an 80-mile route between Portland and the coast. Moritz Thompson, Portland, is Pres.

VALLEJO, CAL.—Thomas T. C. Gregory, of Suisun, Pres. of the Vallejo & Northern Electric Ry. Co., according to the San Francisco "Call" states that "work will begin at once upon the Vallejo & Northern and Northern Electric combination bridge, at the foot of M St. in Sacramento, and also upon the construction of the Yolo Basin division of the Vallejo & Northern. We intend to push and bring to an end all condemnation suits in Yolo County. At a meeting of the directors of the road to be held in Vallejo on July 28 the capital stock will be increased from $2,500,000 to $10,000,000."

SAN FRANCISCO, CAL.—The Mayor and other city officials have decided to build an overhead trolley car system reaching the ocean by a loop from 33d Ave. to B St. The old Sutro line, now owned by the United Railroads, runs for a distance of seven blocks in Point Lobos Ave., entering the avenue at 33d St. and emerging at 40th St. In order to avoid the conflict of two lines in the same street it has been proposed that the municipal line be deflected two blocks south at 33d Ave., running to B St. and thence straight out to the beach. This would bring the terminal near the Seal Rock House close to the big bluff that rises behind the Cliff House.

The United Railroads has been given permission to recommence the work of construction on Presidio Ave. which was stopped on order of the Board of Works. The permit as issued yesterday by resolution of the Board requires the tracks to be reconstructed as far as California St., from the curve at Jackson St. and be completed within 30 days from the date of the resolution.

VANCOUVER, B. C.—The British Columbia Electric Ry. Co. has awarded the contract to McALPINE, ROBERTS & CO., of Vancouver, for grading the extensions of its North Vancouver lines in the Capilio District. R. H. Sperling, Vancouver, is Gen. Mgr.

LIGHT AND POWER PLANTS.

(**Denotes that this work is advertised in Engineering News.*)

BANGOR, ME.—The BANGOR RY. & ELECTRIC CO. has been awarded contract by the Eastern Maine Insane Hospital for furnishing electricity for lamps and motors for the hospital. The company plans to install a motor-generator set to increase the output of its plant to provide for the hospital service. C. M. Tolman is Ch. Engr. and Elcn.

WESTFIELD, MASS.—Plans have been drawn for an addition to the municipal gas plant. Estimated cost, $15,000.

WEBSTER, MASS.—The Webster & Southbridge Gas & Electric Co., has placed an order with ALLIS-CHALMERS CO., of Milwaukee, Wis., for a 1,000-KW., 3-phase, 60-cycle, 2300-volt, 3600 r.p.m., steam turbo alternator.

BOSTON, MASS.—Bids were received as follows on July 23 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for underground electric conduit: C. M. Leach, P. O. Box 2285, Boston, item 1, $7,883, (conditional); Jones & Meehan, 10 State St., Boston, item 1, $5,878; Lord Construction Co., 213 West 40th St., New York, item 1, $5,842; M. McManus Contracting Co., 414 Wood St., Philadelphia, Pa., Item 1, $5,575; Safety Insulated Wire & Cable Co., 114 Liberty St., New York, Item 1, $8,400; Coleman Bros., 1 Marginal St., Chelsea, Mass., Item 1, $4,750; Smith, Alden & Company, 6 Beacon St., Boston, Item 1, $5,760.

WORCESTER, MASS.—The Crompton & Knowles Loom Co. is preparing to operate its plant by electricity instead of steam power, and has awarded contract to the WORCESTER ELECTRIC LIGHT CO. for electrical power to the amount of 400 HP. W. H. Coughlin is Ch. Engr.

MEDFORD, MASS.—The Mayor has awarded new contract to the MALDEN ELECTRIC CO. for lighting the streets of the city for 10 years. The company is to furnish 592 incandescent lamps at $14.12 each per year, and 162 arc lamps at $76.63 per lamp per year, and also agrees to replace the present 25-cp. incandescent street lamps with 40 c.p. tungsten lamps. A reduction in price and for furnishing improved type of lamp or apparatus by the company in the event that another municipality shall make a more advantageous or lower priced contract with the company is provided for. The contract dates back to March 1 and breaks a previous agreement made July 20, 1907. F. C. Sargent is Electrical Engr.

NEW HAVEN, CONN.—Bids will be received until July 30 by the Board of Education, G. T. Hewlett, Secy., for wiring and lighting the New Haven High School for equipment for domestic science and manual training rooms at the Prince St. School, and for new engine and generator at the Boardman Manual Training School.

NEW YORK, N. Y.—Contract for completing the electric equipment for School No. 101, Boro. Manhattan, contract for which had been declared abandoned, has been awarded to COWDEN & DE YOUNG, 45 East 42d St., New York, at $7,583. C. B. J. Snyder is Supt. of School Bldgs.

NEW YORK, N. Y.—The New York Electric Lines Co. has applied to Henry G. Thompson, Comr. Water Supply, Gas and Electricity, for permission to place its wires in the subways controlled by the Consolidated Electrical Co. and the Empire Subway Co., which are owned by the city, proposing to operate light, power, telephone and telegraph lines.

NEW YORK, N. Y.—Bids were received as follows by the Department of Education on July 25 for repairs, alterations and additions to electric equipment in Public School 103, Madison Ave. and 119th St., Boro. of Manhattan: Cowden & De Young, Inc., $6,600; New York Construction Co., $6,430.

Bids for installing electric equipment in the addition to and alterations in Public School 58, on the southerly side of Grafton Ave., between Walker Ave. and Clinton Pl., Woodhaven, Borough of Queens, were also received as follows: Cowden & De Young, Inc., $11,000; New York Construction Co., $10,473; T. Fred Jackson, $10,995; Pete & Powers, $11,383.

NEW YORK, N. Y.—We are officially advised that bids were received by the Park Board on July 21, for (a) all materials and labor required for furnishing and installing electric lighting fixtures in the Metropolitan Museum of Art, located in Central Park, on the west side of Fifth Ave., opposite 82d St., Boro. Manhattan; (b) for all materials and labor required for furnishing and installing electric lighting fixtures in new addition (F) of the Metropolitan Museum of Art; (c) for all labor and materials required for changes in old electric feeder system and rearrangement of night light control for the Metropolitan Museum of Art; for labor and material required for furnishing and installing a system ventilation in the attic story of the east wing (D) of the Metropolitan Museum of Art: (a) Max Karp, 679 Lorimer St., Brooklyn, $3,650; R. J. McKinnon, 217 West 125th St., New York, $3,586; Reis & O'Donovan, Inc., 207 East 37th St., New York, $3,474; E. Rutzler Co., 404 East 49th St., New York, $4,205; (b) Black & Boyd Mfg. Co., 23 East 22nd St., New York, $8,100; The Browe Co., 903 Broad St., Newark, N. J., $6,500; The Enos Co., 16th St. and 7th Ave., $5,904; Gaites Peace & Co., 665 Manhattan Ave., Brooklyn, $6,290; Sterling Bronze Co., 113 West 25th St., New York, $9,592; (c) Cowden & De Young Inc., 45 East 42nd St., New York, $3,960; Lord Electric Co., 213 West 40th St., New York, $2,984; Reis & O'Donovan, Inc., 207 East 37th St., New York, $3,480.

NEW YORK, N. Y.—Bids will be received until Aug. 3 by the State Armory Board, Capitol, Albany, F. A. McNeely, Secy., for electric wiring and fixtures in State Arsenal, Seventh Ave. and 35th St., New York.

INDUSTRY, N. Y.—Bids will be received by Laura E. Aldridge, Pres. Bd. of Managers, of the State Agricultural and Industrial School, Industry, until Aug. 9, for electric feeder cables, poles and transformers for the State Agricultural and Industrial School. Plans and specifications may be consulted and blank forms of proposal obtained at the State Agricultural and Industrial school, Industry, and at the office of Franklin B. Ware, State Arch., Albany, where plans and specifications can also be secured.

BUFFALO, N. Y.—Plans for a new electric power transmission company that proposes to furnish Niagara Falls power to Dunkirk, Westfield, Jamestown and other towns through the grape belt, possibly extending as far west as Erie, were placed before the Public Service Commission on July 6 at Albany. The company is known as the Niagara & Erie Power Co. and is controlled jointly by the Buffalo & Lake Erie Traction Co. and the Niagara, Lockport & Ontario Power Co. Francis V. Greene, 816 Fidelity Bldg., Buffalo, is interested.

GLOVERSVILLE, N. Y.—The Fulton County Gas & Electric Co., J. B. Hodgson, Supt., will build a high tension line from Gloversville to Ephratah, a distance of nine miles, requiring 135 steel towers, 46 ft. to 56 ft. high, "A" frame construction, and will also construct and equip a 1-story brick substation, 60 × 33 ft., at Gloversville.

ROCHESTER, N. Y.—Herbert W. Pierce, Fire Marshal, on July 14 granted a permit for the construction of the power plant for the Mechanics Institute. Estimated cost, $13,000.

McCALL FERRY, PA.—The Pennsylvania Water & Power Co. contemplates duplicating its hydroelectric generating plant on the Susquehanna River at McCall Ferry to save the expense of constructing and maintaining an auxiliary steam power plant.

EASTON, PA.—Plans have been prepared by M. H. Treadwell & Co., of Lebanon, Pa., Stoever Foundry & Manufacturing Co., of Myerstown, Pa., and the Lebanon Steel Castings Co., of Lebanon, for the erection of combined plants on a tract of 28 acres here. The new plant will be equipped for electrical operation throughout.

SCRANTON, PA.—The Scranton Electric Co. will erect a substation on Pike St. near South Main St. Plans are now being prepared.

FREDERICK, MD.—The Frederick R. R. Co. and Hagerstown Ry. Co. have engaged P. O. Keilholtz, Continental Bldg., Baltimore, Md., to prepare plans and specifications for the construction of a joint powerhouse.

*WASHINGTON, D. C.—Bids are asked until 3 p. m., Aug. 19, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for furnishing and installing lighting fixtures in the U. S. buildings at Gonzales, Tex.; Greenwood, S. C.; Michigan City, Ind.; Paris, Ky.; Pittsfield, Mass.; Augusta, Me., and Eureka, Cal.

WASHINGTON, D. C.—Bids are asked until Aug. 5 under Proposal No. 471, by the Chief Signal Officer, Washington, for furnishing two transformers of 10 KW. and one of 3 KW. A. S. Cowan is Disbursing Officer. Bids are asked until Sept. 15 by William Crozier, Ch. of Ordnance, U. S. A., for furnishing electrical apparatus for two 14-in. gun turrets, model 1909.

*WASHINGTON, D. C.—Bids are asked until 2 p. m., Aug 8, by the Department of the Interior for the installation of a vacuum-heating system for the Pension office building. Frank Pierce is Acting Secy.

CAPE CHARLES, VA.—The New York, Philadelphia & Norfolk R. R. Co. has awarded contract for power plant and other equipment for the new shops and roundhouse at Cape Charles to the B. F. SHAW CO., of Wilmington, Del.

MIDLOTHIAN, VA.—The Richmond Power Corporation has been chartered with $500,000 capital stock by S. Dabney Crenshaw and Levin Joynes, of Richmond; F. W. Meulen, St. John Clarke and Henry B. Twombley, of New York, and plans the construction of a plant to transmit electricity for power to Richmond, Petersburg and Norfolk. An initial unit of 10,000 HP. will be installed. S. Dabney Crenshaw, Richmond.

WHEELING, W. VA.—The Consumers' Electrical Co., 51 16th St., is planning the construction of a power plant for which plans are being prepared. Estimated cost, between $700,000 and $900,000.

HICKORY, N. C.—The Thornton Light & Power Co., Hickory, has completed arrangements for financing its proposed hydroelectric power plant on the Catawba River, where 8,000 HP. will be developed for transmission. The company proposes to supply electricity for railways, lighting and industrial purposes. M. E. Thornton is Pres.

CHARLESTON, S. C.—R. H. Rhett, Mayor, has appointed a special committee to select engineers to estimate the cost of constructing the electric light plant.

HONEA PATH, S. C.—The City Council has engaged J. B. McCrary & Co., Consulting Engrs., Atlanta, Ga., to make surveys and prepare plans for the construction of an electric light plant here.

GREENVILLE, S. C.—The City Council has granted to the Home Light & Power Co., of Greenville, a 30-year franchise. A. E. Sussex is City Clk. and Treas.

DALTON, GA.—The H. S. Jaudon Engineering Co., of Savannah, Ga., has completed plans and specifications for the electric-light plant. The equipment will include compound-condensing engines direct connected to generators. Capacity, 500 HP.

MACON, GA.—The Cherry St. business men are forming an association for the purpose of installing a new electric illuminating system on Cherry St. Plans as prepared by J. E. Rood have been adopted. F. H. Hyman is Secy. and Treas.

ATLANTA, GA.—The City Council has granted to the Georgia Power Co., capitalized at $6,000,000, a franchise here for 50 years. The company recently purchased the property and holdings of the North Georgia Electric Co. at a receiver's sale. The power plant is located in Gainesville, Ga., and has its wires erected to the Atlanta city limits. E. Elmer Smith, of York, Pa., is Pres.; L. F. Joerissen, of Atlanta, Ga., is Treas.

OPELIKA, ALA.—The city has voted $85,000 of bonds for the construction of an electric-light plant and water-works.

MONTGOMERY, ALA.—The MONTGOMERY LIGHT & WATER POWER CO. has been awarded contract by the city for furnishing electricity for operating the pumping station of the municipal [illegible]ter-works for ten years, with the pr[illegible] of renewal. A. S. Lowrie is Ch. Engr.

ABBEVILLE, ALA.—The [illegible]be Light & Power Co., lately incorporated with a capital stock of $60,000, is contemplating the construction of an electric [illegible]wer plant to [illegible] for construction will be ca[illegible] for soon, it is reported. James R. H[illegible] of Columbus, Ga., is Engr-in-Charge.

NEW ORLEANS, LA.—The Consumers Electric Co. has awarded contract to OTIS W. SHARP, of New Orleans, La., for the erection of concrete and steel building for substation. The equipment will include a 500-KW. motor-generator with necessary switchboard and cable connections, for which contracts have been awarded.

CLEVELAND, TENN.—The Eastern Tennessee Power Co. has been chartered with $1,750,000 capital stock by [illegible] Alston H. C. Beck, Sherman Beck and L. Wes[illegible] of Chattanooga, Tenn., and Henry Crumbliss, of Kingston. The company, it is reported, will own water-power electrical plant to be constructed by J. G. W[illegible] & Co., [illegible] Exchange Pl., New York, and will develop 30,000 HP. at first and 2[illegible] additional HP. in future.

AKRON, OHIO.—The Northern Ohio Traction & Light Co., of Akron, is making preparations for the construction of a new power plant here. Plans are now being prepared and it is expected that bids will be asked soon. Estimated cost, $2,000,[illegible] Charles Currie is Gen. Mgr.

GLADSTONE, MICH.—The Northwestern Cooperage & Lumber Co. is planning to increase the output of its plant and flouring mill and has awarded contract to the ALLIS-CHALMERS CO., of Milwaukee, Wis., for a 50-KW., 480-volt, 3-phase, 60-cycle alternator, with exciter and 36 squirrel cage induction motors and switchboard.

DETROIT, MICH.—The Anderson Forge & Machine Co. is arranging to install a 2[illegible] KW. and a 125-KW., 60-cycle, 3-phase, 2[illegible]-volt alternator manufactured by the Allis-Chalmers Co., of Milwaukee, Wis., in its new plant, now under construction.

*STURGIS, MICH.—We are officially advised that bids were received as follows on July 6 by the city for Contract No. 1, a brick and concrete water-power station building and excavation for a tail race and Contract No. 2, a concrete multiple arch spillway and an earth embankment. The approximate quantities of the principal items will be: Contract No. 1, for building 1,900 cu. yds. of excavation, 1,3[illegible] cu. yds. of concrete, 16 tons of steel reinforcing and 70,000 brick; for tail race, 2,000 to 4,000 cu. yds. of excavation; Contract No. 2, for spillway, 4,500 cu. yds. of excavation, 1,900 cu. yds. of concrete, 2[illegible] tons of steel reinforcing; for embankment, 24,000 cu. yds. of fill. Contract 1; American Engineering & Construction Co., $3[illegible]304, 210 days; Falkenan Electric Construction Co., $36,804, 180 days; Sand & Gravel Co., $24,728, 147 working days; Olsen Construction Co., $19,844, 180 days. Contract 2: Garden-Callahan Co., $61,434, 200 days; American Engineering & Construction Co., $72,000, 210 days; Falkenan Electric Construction Co., $53,567, 180 days; Sand & Gravel Co., $43,162, 147 working days; Olsen Construction Co., $31,212, 180 days. The American Engineering & Construction Co., offered a reduction of $1,000 on the total of both contracts and the Sand & Gravel Co., a reduction of $1,200.

STREATOR, ILL.—The Illinois Valley Gas & Light Co. is preparing for the construction of a 10,000-HP. electric plant here. Provision will be made to increase the output of the plant to 30,000 HP., as the service requires. This company is a subsidiary of the Economy Light & Power Co., of Joliet.

NORTH CRYSTAL LAKE, ILL.—The city will advertise for bids for an electrically connected pump. Dr. H. D. Hull is Pres. Com.

STRAWBERRY POINT, IOWA.—Contract for the construction of an electric light plant here has been awarded to the MINNEAPOLIS STEEL & MACHINERY CO., of Minneapolis, Minn. The electric work was awarded to the FORT WAYNE ELECTRIC WORKS, Fort Wayne, Ind. Oscar Claussen, St. Paul, Minn., is Consulting Engr. Estimated cost, $15,000. Bids were opened on July 19.

DEXTER, IOWA.—We are officially advised that the city is considering the construction of a lighting plant and water system. E. J. Frum is City Clk.

GRANITE FALLS, MINN.—See item under Water Supply-Irrigation.

CHANUTE, KAN.—The Ash Grove Lime & Portland Cement Co., has awarded to ALLIS-CHALMERS CO., of Milwaukee, Wis., the contract for a 46 × 42 low-pressure engine, to be used in its power plant as the low pressure side of a cross compound engine. An old engine will be used as the high pressure side.

BISMARCK, N. DAK.—The Hughes Electric Co. is constructing a new electric plant, the equipment of which will include boilers with mechanical stokers, an 800-HP. cross-compound engine and an electric generator. F. Farnsworth is Ch. Elecn.

FARGO, N. DAK.—On July 6 the citizens voted to issue $35,000 of bonds for the construction of a municipal electric light plant.

RAPID CITY, S. DAK.—The Dakota Power Co. has awarded contract to the ALLIS-CHALMERS CO., of Milwaukee, Wis., for three 100-KW. and three 7[illegible]-KW. oil-filled, self-cooled, 60-cycle, 20,000 [illegible]300-volt transformers.

PIERRE, S. DAK.—Bids will be received by T. C. McNamee, Clk. Bd. of Education, until Aug. 8 for the construction of a power-house, installation of heating plant and plumbing, separate bids to be submitted for each. Plans and specifications are on file at the office of the Clerk at the

Builders' Exchanges in St. Paul and Minneapolis, Minn., and at the office of George Issenhuth, Arch., Huron, S. Dak.

MILES CITY, MONT.—See item under Water Supply-Irrigation.

MORRILTON, ARK.—The Morrilton Light & Power Co. has been incorporated with $20,000 capital stock by William L. Moose, Clifton Moose and G. H. Burr.

HAMBURG, ARK.—The Hamburg Improvement District Board of Commissioners will install an electric-light plant and waterworks.

LESLIE, ARK.—J. W. Vaughan and James F. K[illegible], of Leslie, have been granted a franchise by the City Council to construct and operate an electric light plant and water works system here.

DEVINE, TEX.—Burnett & Fenneman, of Indianapolis, Ind., will install an electric-light plant and ice factory here.

HOUSTON HEIGHTS, TEX.—A charter has been obtained in Austin for the Suburban Gas Co., of Houston Heights, capitalized at $100,000, of which H. W. Bennett, Willis Morris and J. W. Foote are the incorporators. A franchise to furnish gas in Houston Heights has been obtained from the City Council of that municipality by H. W. Bennett. He also has an application on file with the Commissioners' Court for a franchise to lay gas mains in the suburbs of Chaneyville and Brunner, both of which adjoin Houston Heights.

OSAGE, OKLA.—The Osage Land & Development Co., 500 North Broadway, Oklahoma City, Okla., is contemplating the construction of an electric light plant in Osage.

DURANT, OKLA.—The city will install an electric-lighting plant.

FOSS, OKLA.—The city is contemplating the installation of an electric-lighting system.

ADA, OKLA.—The McKenna Construction Co., which is promoting the construction of an interurban electric railway between St. Louis, Mo., and Oklahoma City, Okla., has secured water rights for a power plant here.

MILLIKEN, COLO.—The Northern Colorado Power Co. is making arrangements for the erection of a large transformer station here, from which electricity will be distributed to farms and near-by towns. C. H. Williams is Mgr.

REPUBLIC, WASH.—The North Washington Power Co., which owns and operates a power plant here, has leased, it is reported, the plant in Oroville, Wash., and proposes to build a transmission line 45 miles long to this town.

TACOMA, WASH.—No bids were submitted on July 5 for the substation for the Nisqually power plant, due to the warrant plan of payment. The cost of the station is estimated at $95,000. The city officials, it is reported, may arrange to dispose of the warrants.

ELLENSBURG, WASH.—Water rights have been filed by the Cle Elum Falls Power Co. with the County Auditor appropriating 5,000 cu. ins. of water per sec. from the Cle Elum River, for generating electricity. J. C. Donnelly, of Tacoma, Wash., is Pres.

PRINEVILLE, ORE.—Prineville capitalists have filed articles of incorporation with the County Clerk for the Cove Power Co. for the purpose of generating electric and water power. The main office is to be located at Prineville. Capital stock, $50,000. W. Booth is Pres., Prineville.

ASHLAND, ORE.—On June 27 the citizens voted to issue $55,000 of bonds, $25,000 to be used to complete the municipal electric plant and $30,000 for paving. M. F. Eggleston is Recdr.

FRESNO, CAL.—The Southern Pacific Ry. Co. is contemplating the construction of an electric power plant to supply electricity for lighting the depot, yards and freight sheds. The service is now furnished by the San Joaquin Light & Power Co., of Fresno.

PORTERVILLE, CAL.—Frank H. Hess, Mgr. and Engr., Home Gas Co., is planning an extension of the plants of the company, the ultimate object of which is to supply, through a central station, gas to all the neighboring cities of the county. According to the plan, as it has been outlined at the present time, a large plant, with a capacity for supplying Exeter, Lindsay, Strathmore, Terra Bella and Ducor, will be established and gas supplied to all the localities named through high pressure lines. While the locality has not as yet been decided upon, it is probable that the central plant, if the plan is carried out, will be located at Lindsay.

SACRAMENTO, CAL.—Articles of incorporation of the Sacramento Valley Power Co. were filed on June 30 in the County Clerk's office. The company owns water rights and a power plant on the Feather River, in Shasta County. With the articles of incorporation is a deed of trust to the Central Trust Co. as guarantee for a bond issue of $500,000 for development purposes. The incorporators are: Paul C. Morf, Henry C. McPike, Lewis I. Haven, John J. Dailey and James F. McCue.

OROVILLE, CAL.—Charles Swezy, an attorney of Sacramento, has filed in the office of the County Recorder of Butte County an appropriation of 20,000 ins. of water. Of this amount of water 10,000 ins. are taken from the water of Mosquito Creek and 10,000 ins. of the water of French Creek. The filing was made in the name of Annie Swezy. The purpose of the appropriation are named as irrigation and power. The water will be taken from Mosquito Creek at a point one mile from its junction with French Creek. The water of French Creek is located at a point above the junction of the two streams. The notice states that the water of Mosquito Creek will be diverted by means of a dam 15 ft. high made of concrete and 30 ft. wide. On French Creek it is proposed to build a dam 10 ft. high and 50 ft. wide. The water will be carried in ditches 12 ft. wide at the base to the power-house. The appropriations do not state the location of the power-house. From the locations stated, however, it is presumed that the power-house will be west of the Berry Creek Hotel.

SAN FRANCISCO, CAL.—The Sierra & San Francisco Power Co., which supplies electricity for operating the system of the United Railroads of San Francisco, has authorized an issue of $6,500,000 of bonds for enlarging its plant and extending its service. The company has purchased the entire power system of the United Railroads and has entered into a contract for a term of 44 years to supply the latter with energy to operate its railways. The company further proposes to spend $1,000,000 during the next three years for the construction of a distributing system in San Francisco and elsewhere. The district now served by the company includes the counties of San Mateo, Santa Clara, Alameda, San Joaquin, Tuolumne, Stanislaus and Calaveras. The principal power station of the company is located on the Stanislaus River, north of Sonora, the transmission line passing through Vallecito, Angels Camp, Copperapolis, Tracy, Mission, San Jose and thence to San Francisco. The company proposes to develop additional water rights on the Stanislaus River, which will more than double its present hydraulic capacity and the output of the auxiliary steam plant is to be increased from 12,500 HP. to 28,500 HP. next year. H. F. Jackson, 115 Broadway, New York, is Asst. Gen. Mgr.

SAN FRANCISCO, CAL.—The Standard American Dredging Co., of San Francisco, has awarded contract to the ALLIS-CHALMERS CO., of Milwaukee, Wis., for a 500-KW., 2,300-volt, 3-phase, 60-cycle, 3,600 r. p. m. generator to be installed on one of its dredges to furnish electricity to drive a 500-HP. motor direct connected to the dredge pump, the alternator to receive excitation from a 15-KW., Allis-Chalmers generator direct connected to an engine made by the American Blower Co.

PLACERVILLE, CAL.—Notice has been filed with the County Recorder by H. H. Baker of an appropriation of 50,000 cu. ins. of water of the Rubicon River. This water will be diverted at a point on the river a short distance from what is known as the Grasshopper Bar and will be used to generate electricity for the operation of electric railways.

LINCOLN, CAL.—The Pacific Gas & Electric Co., which owns and operates the local electric light system, is contemplating extensive improvements to the plant here.

REDONDO BEACH, CAL.—The CHAS. C. MOORE CO., Trust Bldg., Los Angeles, has secured contract for two 10,000 HP. Cochrane vertical feed water heaters and purifiers, f.o.b. cars Redondo Beach, for the Pacific Light & Power Co., at $6,000.

CISCO, UTAH.—Plans are being prepared by the Hampton-Fielding Engineering Co., of Denver, Colo., for the construction of a power plant for the Grand Valley Fruit & Water Co. here. The plant will furnish power and water for irrigation purposes. Estimated cost, $300,000.

PROVO, UTAH.—The Provo Electric Co. has submitted a proposition to the City Council offering to sell its distributing system to the city at $100,000. The city has voted to issue bonds for $110,000 for the construction of a municipal plant.

LONDON, ONT.—See item under Water Supply-Irrigation.

WINNIPEG, MAN.—Bids are asked by the Board of Control until noon, Sept. 1, for the manufacture, delivery, and installation of 46,000 ft. of 13,000-volt 3-core cable. M. Peterson is Secy.

MEXICO CITY, MEX.—Applications for concessions have been made as follows: To the National Department of Fomento to use the waters of the rivers and smaller streams of Mexico for generating power; by Albert B. Fall, to use 14,000 gallons of water per sec. from the Aros River in the Guerro District, Chihuahua, to generate electricity for use in mines. The plans for the proposed hydro-electric plant have been drawn and its installation will be started as soon as the concession is formally granted; by D. J. Spillane to use the water from the falls of the Gallinas River in the Santa Maria del Rio District, state of San Luis Potosi to operate a hydro-electric plant which he is preparing to install there. The power will be transmitted to mining and industrial centers of that region; by the La Cruz Mining & Milling Co. to use 314 gallons of water per sec. from the Navosaigame River, state of Chihuahua, to generate electrical energy. The power will be used to operate the machinery of the mines and mill of the company.

BAVARIA.—The Bavarian Diet on July 22 voted $1,500,000, the first installment to be used for the construction of water-power works at Lake Walchen, where power for the complete electrification of the state railroads of Bavaria will be developed. Further appropriations will be made annually.

BRIDGES.

(**Denotes that this work is advertised in Engineering News.*)

SOLON, ME.—Bids were received on July 23 as follows by the Solon Bridge Committee, at the Carratunk House, Solon, G. D. Perkins, Chn., for furnishing material and constructing the superstructure of a steel highway bridge over the Kennebec River, between the towns of Solon and Embden. Length of bridge, about 480 ft.: Masonry—Reed, Steward & Blunt, first-class masonry, $18.95; second-class masonry, $8.95; 1-3-6 concrete under water, $11.95; 1-3-6 concrete above water, $7.95; 1-2-4 concrete above water, $14.15; excavation under water, $1. J. L. Parkin & Son, $16.50, $9.60, $10.50, $7.50, $8.50, $2.25. C. S. Humphreys, 1-3-6 concrete under water, $10.45; 1-3-6 concrete above water, $9.96; 1-2-4 concrete above water, $10.85; excavation under water, $1.49. Superstructure: Penn Bridge Co., Beaver Falls, Spans, 240-240 ft., $17,120; spans, 300 ft.-180 ft., $19,600; spans, 80 ft.-200 ft.-200 ft., $15,130; Canton Bridge Co., $17,600, $19,300, $15,265; American Bridge Co., $20,168, $21,624, $17,950; Boston Bridge Works, $18,980, $20,083, $16,498; Pennsylvania Steel Co., spans, 240 ft.-240 ft., $24,120. Contract awarded to J. L. PARKIN & SON, Fairfield, Me., for the masonry, and to the PENN BRIDGE CO., of Beaver Falls, for the superstructure, spans 80 ft.-200 ft.-200 ft.

DANBURY, CONN.—The Country Commissioners have had plans and specifications prepared for the construction of a new bridge from the city to Packer's Island. Bids will be received soon. The Sunbury & Northumberland Trolley Co. have agreed to subscribe $17,000 toward the structure.

SAYBROOK, CONN.—Bids will be received until Aug. 10 for the Saybrook and Lyme Connecticut River Bridge Commission, Saybrook, James H. Day, Secy. and Treas., for constructing the superstructure of a highway bridge over the Connecticut River between the towns of Old Saybrook and Old Lyme. The bridge is to be of 8-deck riveted spans of about 159 ft., 2-deck riveted spans of 122½ ft., 1-deck Scherzer rolling lift draw in two wings, total length, 282 ft. Boller & Hodge, are Consulting Engrs., 149 Broadway, New York.

NEW YORK, N. Y.—Bids are asked by Kingsley L. Martin, Comr. of Bridges, until 2 p. m., Aug. 4, for replacing floor beams, stringers, etc., on the steel superstructure of the Manhattan Bridge over the East River between the Boroughs of Manhattan and Brooklyn; for removing the Madison Ave. temporary bridge over the Harlem River, and the approaches thereto.

OSWEGO, N. Y.—Bids are asked by F. C. Stevens, Supt. Pub. Works, Albany, until noon, Aug. 23, for Barge Canal Contract No. 79, constructing a highway bridge over the Oswego Canal at Oswego. Estimated cost, $39,735. Frank M. Williams, Albany, is State Engr.

ROCHESTER, N. Y.—The city will construct a reinforced-concrete steel-arch bridge across the Genesee River at Central Ave. per plans and specifications at the office of the City Engineer. Bids will be received by the Secretary of the Board of Contract and Supply until 10 a. m., Aug. 3.

LOWMAN, N. Y.—Bids will be received until Aug. 2 by the Towns of Chemung and Ashland at the office of C. L. Straight, Wellsburg, for a steel bridge with concrete floor and also a concrete bridge across Baldwin Creek, Lowman.

PITTSBURG, PA.—No contract was let June 27 at the office of the City Comptroller for constructing three main piers for the Northside Point bridge, about 16,000 cu. yds. stone and concrete masonry, and the awarding has been postponed indefinitely. Joseph G. Armstrong, Dir. Dept. Pub. Wks.; N. S. Sprague is Supt. Bureau of Construction.

*BERWICK, PA.—Bids were received as follows by the Columbia County Commissioners on July 19, for a permanent floor on the Berwick-Nescopeck bridge across the Susquehanna River here: C. H. Reimard, Bloomsburg, Pa., $26,688; John P. Fooley, Wilkes-Barre, Pa., $28,890.

PHILADELPHIA, PA.—Bids were opened as follows on July 20 by the city for a bridge over the Pennsylvania R. R., on line of N St.: John McMenamy, $46,500; Cramp & Co., $45,778, both agreeing to complete the work in eight months; American Paving & Construction Co., $52,700, nine months; Thomas F. Reilly, $44,000, six months; McNichol Paving & Construction Co., $48,109, twelve months, and Richard Walsh, $39,757, seven months.

LOCK HAVEN, PA.—Bids will be received by the Commissioners of Clinton County until 1 p. m., Aug. 12, at Lock Haven, for the construction of a steel span bridge with Kreodone block floor and concrete substructure; also for a steel bridge with a concrete floor and concrete substructure over Sinnemahoning Creek at Keating in East Keating Township. James A. Wensel is Clk.

BALTIMORE, MD.—The Raymond Concrete Pile Co., Pratt and Concord Sts., Baltimore, is the lowest bidder on the proposed bridge over the Western Maryland R. R. on Poplar Grove Ave. Contract will be awarded soon.

*BALTIMORE, MD.—Bids for the construction of a steel and concrete bridge over Jones Falls at Pratt St., will be received by the Board of Awards until 11 a. m., Aug. 17. O. F. Lackey is Harbor Engr.

BALTIMORE, MD.—Bids are asked by the Board of Awards until 11 a. m., Aug. 3, for a concrete steel bridge across Stoney Run, Wymon Park, Baltimore. B. T. Fendall is City Engr.

BELAIR, MD.—The State Road Commission, John M. Tucker, Chn., Union Trust Bldg., Baltimore, has awarded contract at $14,000 to DAVID E. EVANS & CO., 402 Hoffman Bldg., Baltimore, for the erection of a reinforced concrete bridge near Belair.

CLIFTON FORGE, VA.—The City Council is considering the issuance of $65,000 of bonds for constructing bridges, etc.

COURTLAND, VA. — Southampton and Greenesville Counties will construct a bridge across the Meberrin River. Address Supervisors of Southampton County at Courtland and Supervisors of Greenesville County at Emporia, Va.

BRANCHLAND, W. VA.—The Branchland Bridge Co. has been incorporated with $20,000 capital stock by L. R. Via, A. M. Parson, J. W. Lute and Rufus Switzer, all of Huntington, W. Va., and W. E. Bardslee, of Clarksburg, W. Va.

COLUMBIA, S. C.—The Augusta & Aiken Suburban Co., James U. Jackson, Pres., Augusta, Ga., will reconstruct the Congaree River bridge.

*COLUMBUS, GA.—We are officially advised that B. H. HARDING, of Columbus, has been awarded contract by the city for the reinforced concrete bridge over the Chattahooche River on basis of cost plus lump sum of $10,000. Estimated cost, $133,000.

TAMPA, FLA.—The Hillsborough County Commissioners will construct a steel bridge across Palm River. Estimated cost, $9,000.

PENSACOLA, FLA.—The Pensacola & Southwestern R. R. has awarded contract to HENRY McLAUGHLIN, of Pensacola, to construct a 4,000-ft. bridge across Perdido Bay.

MONTGOMERY, ALA.—HUGGER BROS., of Montgomery, have secured contract for the reinforced concrete bridge over Central of Georgia R. R. tracks at Madison Ave., at $8,400.

CLEVELAND, OHIO.—The Board of County Commissioners has awarded contract to BALDWIN BROS., of Cleveland, for the construction of bridge work, per report No. 2,658, retaining wall, St. Clair Road, Euclid Township. Bids were opened on July 13.

LIMA, OHIO.—Bids will be received by the Director of Public Service until July 29 for the necessary labor and material to construct a concrete bridge across Ottawa River on Pine St. Glen I. Wallace is Clk.

AKRON, OHIO.—Contract for the construction of the viaduct has been awarded to the AKRON STORAGE & CONTRACTING CO., Akron, at $21,971. Other bidders were: Hunt & Wigley, $28,300; E. J. Lander, Canton, $25,500; E. W. Parshall, $26,400; E. McShaffrey, $26,800.

CINCINNATI, OHIO.—The City Engineer has completed plans for the erection of a viaduct at Monmouth, Eleventh and John Sts. Estimated cost, $90,000.

Contract for constructing a reinforced concrete bridge over the C. L. & M. Ry. tracks, bids opened July 8, has been awarded to the KIRCHNER CONSTRUCTION CO., at $12,724.

YOUNGSTOWN, OHIO.—Charles Connell has submitted the lowest of nine bids on the Andrews Hollow bridge, at $27,205. The next lowest was Louis Adavaskio, whose estimate was $27,785.

CARLISLE, OHIO.—The C., H. & D. Ry. Co. will soon begin the erection of a bridge south of Carlisle, which is to cost $50,000. The contract for the masonry has been let to GARRETTSON & CO., of Cincinnati, Ohio, at $15,000. The contract for the steel work was let some time ago. The contract let yesterday is for the building of the cement abutments and piers. The cement work will be begun at once.

NEWARK, OHIO.—Bids are asked until 1 p. m., Aug. 15, by the County Commissioners for superstructures and substructures for various bridges, etc. Fred S. Cully is County Surv.

MICHIGAN CITY, IND.—Bids will be asked probably for the reconstruction of the superstructure of the Franklin St. 95-ft. bascule bridge, wrecked recently by a steamer. The foundations, trunnions, counterweights and machinery remain in good condition. Harry M. Miles is City Engr.

ANDERSON, IND.—Bids will be received until Aug. 16 by the Board County Commissioners for constructing five reinforced concrete and steel bridges near Anderson. W. T. Richards is County Audr. A. Smith is County Engr.

SOUTH BEND, IND.—Bids will be received until Aug. 1 by Board County Commissioners for constructing an I-beam bridge in Center Township, and repairing a brick arch in Liberty Township. John W. Harbon is County Audr.

COVINGTON, IND.—The County Commissioners on July 19 awarded contract to the CAROLINA ENGINEERING CO., of Burlington, N. C., for the construction of the bridges across Bankilch and De Coursey Creeks at $13,450.

FORT WAYNE, IND.—The Commissioners of Allen and Adams Counties have ordered plans on which bids will be asked for the construction of a joint concrete bridge across the St. Mary's River on the county line.

INDIANAPOLIS, IND.—The Commissioners of Marion County are preparing to ask for bids for the construction of a concrete bridge over Little Eager Creek, West Washington St. Estimated cost, $30,000.

CRAWFORDSVILLE, IND.—The Board of Commissioners of Montgomery County will receive bids for the construction of certain bridges in said county until 10 a. m., Aug. 2. Plans and specifications of said bridges are now on file in the office of the County Auditor.

DANVILLE, IND.—Bids will be received until 10 a. m., Aug. 2, by the Commissioners of Hendricks County for the construction of seven bridges. W. H. Nichols is County Audr.

ROCKVILLE, IND.—Bids will be received by the Commissioners of Parke County until 11 a. m., Aug. 8, for the construction of a bridge over Big Raccon at Roseville. Bids will be received for both wood and reinforced-concrete bridges. Wood bridge will consist of two pans, one 123 ft. and one 133 ft. and 280 ft. over all. Reinforced-concrete bridge will consist of three spans 80 ft. each and is 308 ft. over all. H. A. Henderson, Audr.

LAPORTE, IND.—The Commissioners of Laporte County are asking for bids until 10 a. m., Aug. 4, for the construction of three bridges. C. H. Miller, Audr.

PAOLI, IND.—Bids will be received until Aug. 2 by Commissioners of Orange County for the construction of a bridge at Johnson's Ford. A. B. Ham, County Audr.

BROWNSTOWN, IND.—The Commissioners of Jackson County will receive bids until 1 p. m., Aug. 2, for the construction of seven bridges. H. W. Wacker, County Audr.

BRAZIL, IND.—The Commissioners of Clay County are asking for bids until 11.30 a. m., Aug. 4, for the construction of a steel bridge with concrete abutments. J. L. Burns is County Audr.

SPRINGFIELD, ILL.—Bids will be received until July 30 by the Road and Bridge Committee of the Board of Supervisors of Sangamon County, and the Commissioners of Highways of Springfield Township, at the office of James Reilly, 110½ North Fifth St., Springfield, for the construction of a 20-ft. roadway concrete bridge with a 147-ft. span over Spring Creek, on Walnut St. road, a short distance from Oak Ridge Cemetery.

JACKSONVILLE, ILL.—The ILLINOIS STEEL BRIDGE CO., of Jacksonville, has been awarded contract at $5.45 for constructing a steel bridge over Lessig branch, Point Precinct, for Calhoun County. Bids were opened on July 11 at Hardin, Ill.

TWO HARBORS, WIS.—Contract for constructing an 80-ft. steel bridge on concrete abutments over Silver Creek, bids opened on July 11, has been awarded to the JOLIET BRIDGE & IRON CO., of Joliet, Ill., at $2,200.

OTTUMWA, IOWA.—The Board of County Supervisors of Ottumwa has accepted the plans and specifications prepared by the engineering force of the Ottumwa Bridge Co. for the construction of four bridges in Competine, Highland and Washington Townships and one over the Bear Creek in Ottumwa. The structures as proposed will be of steel with concrete floors and abutments.

DES MOINES, IOWA.—The City Council on July 18 ordered the construction of a new concrete bridge across the Des Moines River at Walnut St. Estimated cost, $168,000. Bids will be asked about Sept. 1. John W. Budd is City Engr.

*DES MOINES, IOWA.—Bids will be received for a 6-span concrete bridge at Des Moines, on Aug. 10. Each span is 68 ft. clear, and two 12-ft. sidewalks. For plans and specification address Neal Jones, City Clk.

FREMONT, NEB.—The Supervisors of Dodge County have decided to construct steel bridges across the ditch of the Elkhorn River drainage district, instead of wooden ones for which an appropriation of $6,000 was made. The work as now planned will cost about $10,000.

FAIRFAX, S. DAK.—Ludwig Trautmann, County Audr., on July 9, awarded contract for the construction of all steel and wooden bridges and repair of same for a year from date to the STANDARD BRIDGE CO., of Omaha, Neb.

ST. JOSEPH, MO.—The St. Joseph & Savannah Interurban Ry. Co., Charles W. Campbell, Ch. Engr., will construct one pile trestle, 50 ft. high and 500 ft. long, and also two minor trestles from 14 to 56 ft. each in length.

KANSAS CITY, MO.—Bids will be received until Aug. 9 by the Board County Commissioners for constructing two steel bridges; also, until Aug. 11, for constructing a steel bridge; and until Aug. 3 for constructing two steel bridges. R. T. Proctor is County Engr.

CARTHAGE, MO.—The County Court has approved plans and specifications for the construction of five additional county bridges, and William Kohlman, Highway Comr., has been ordered to advertise for bids for the erection of the structures. Estimated cost, $35,000. The largest structure will be over the Spring River at Hall Ford, six miles northwest of the Court-House.

EL PASO, TEX.—The City Engineer has completed plans for the construction of three viaducts over the railroad tracks, of reinforced concrete. Estimated cost, $60,000.

CROSBYTON, TEX.—The Crosbyton-South Plains R. R. Co., John A. Knox, Ch. Engr., will construct two trestles, 500 ft. and 1,000 ft. long, respectively, and 40 ft. high.

HOUSTON, TEX.—Plans for the construction of the San Jacinto St. bridge over Buffalo Bayou have been completed by Frank L. Dormant, Consulting Engr. The plans call for a reinforced concrete structure 70 ft. wide and will provide walks on both sides for pedestrians, driveways for wagons and tracks for the street car company. The new bridge will replace the old structure now in place, and while it is under construction a temporary bridge will be built by the city at a point some distance west of the main bridge.

OKLAHOMA CITY, OKLA.—The Oklahoma County Commissioners, the Park Board and the Oklahoma Ry. Co. are considering plans for a bridge across the North Canadian River at Exchange Ave., to be 75 ft. wide and 206 ft. long. Estimated cost, $55,000.

TACOMA, WASH.—The City Commission has ordered estimates for a new bridge over the city waterway. The channel is 600 ft. wide, and will require one movable span 200 ft. long. Bridge is to be about 20 ft. above old bridge and will allow any ordinary steamer to pass without operating movable span. W. C. Raleigh is City Engr.

VANCOUVER, WASH.—No bids have been submitted for the construction of the bridge on Whipple Creek and the Elmer Martin bridge and the County Commissioners have decided to readvertise for bids.

ANOHEIM, CAL.—J. F. Parker, Gen. Supt. of Construction of the Santa Fe R. R. Co., will at once begin the construction of a steel and concrete bridge across the Santa Ana River, between Anoheim and Orange. There will be 520 concrete piles to support the piers and abutments. Estimated cost, $125,000.

METZ, CAL.—The MONARCH ENGINEERING CO., of Falls City, Neb., has been awarded contract by the Board of Supervisors of Monterey County for the construction of a bridge across the Salinas River near Metz, in King City Road District, Monterey County, at $32,395. List of bidders noted last week.

SANTA BARBARA, CAL.—Bids will be received by the County Clerk until Aug. 1 for the construction of a bridge over Santa Yuez at San Lucas. Estimated cost, $43,000.

SACRAMENTO, CAL.—The Northern Electric Ry. Co., Chico, Cal., has been granted by the War Department, in conjunction with the Vallejo & Northern Ry. Co., the privilege of constructing a swing draw railway vehicle and foot passenger bridge across the Sacramento River at the foot of M St., Sacramento. The bridge will be a steel and concrete structure. Estimated cost, $400,000.

SAN JOSE, CAL.—Bids will be received by the County Board of Supervisors for the construction of a reinforced concrete bridge across Guadalupe Creek. Henry A. Phister is Clk.

MONTEREY, CAL.—Bids will be received until Aug. 2 by the City Council for the construction of a reinforced concrete culvert in Hartnell St.; also for a sewer system on Lomita St., Martin St., Del Monta Ave., and Fountain Ave.

PIEDMONT, CAL.—The Town Trustees have let a contract to the RICKON-EARHART ENGINEERING CO., of San Francisco, for building a concrete bridge in Oakland Ave., at the Linda Ave. crossing, at $32,500.

SALT LAKE CITY, UTAH.—The Salt Lake & Ogden R. R. Co. will build a reinforced concrete bridge, consisting of two 80-ft. spans, across the Weber River. Estimated cost, $25,000. E. A. Vail is Ch. Engr., Salt Lake City.

AMERICAN FALLS, IDAHO.—The Oregon Short Line Ry. Co. is having surveys prepared by its engineers for the construction of a new bridge across the Snake River at American Falls. The new structure, according to plans, will be 14 ft. higher than the old one and will be double-tracked. Estimated cost, $400,000. William Ashton, Salt Lake City, Utah, is Ch. Engr.

*TORONTO, ONT.—Bids will be received addressed to the Chairman of the Board of Control, until noon, Sept. 6, for the construction of a steel viaduct on Queen St., crossing over the River Don, and the roadways on each side, and over the tracks of the Canadian Pacific, Canadian Northern, and Grand Trunk railways, including the following approximate quantities: Excavation (ordinary), 5,400 yds.; excavation (trenches) 2,300 yds.; filling, 24,000 yds.; concrete reinforced walls and footings, 1,570 yds.; concrete reinforced floor slab, 880 yds.; piling, concrete, 10,400 lin. ft.; steel reinforcing rods, 113 tons; reinforcing fabric, 20,000 sq. ft.; structural steel, 752 tons; paving (wood block), 3,010 sq. yds., paving (macadam), 9,000 sq. yds.; also railing, waterproofing, etc. Plans and specifications may be seen and forms of proposal obtained at the office of Engineering News, New York.

WINNIPEG, MAN.—Contract for piers for the Brain and Brant St. bridge has been awarded by the Board of Control to WILLIAM NEWMAN & CO., of Winnipeg, at $54,720. M. Peterson is Secy. Bd.

TUXTLA GUTIERREZ (Chiapas), MEX.—The State and Federal governments will join in the erection of a number of large wagon bridges across the Grijalva River in this state. Governor Ramon Rabasa is in personal charge of the proposed improvements.

BUILDINGS.

(*Denotes that this work is advertised in Engineering News.*)

PORTLAND, ME.—Bids are asked by Capt. Joseph F. Gohn, Constr. Q. M., 655 Congress St., Portland, until 10 a. m., Aug. 18, for the construction of one fire station (brick) at Fort Williams, Me., including plumbing, electric wiring and fixtures, and also for the construction of an ice house (frame) at Fort McKinley, Me.

BOSTON, MASS.—A structure is to be built and leased to the Fiske Rubber Co. by J. Sumner Draper, Devonshire Bldg., and Mark Temple Dowling, Devonshire Bldg. The plans are by Arthur H. Bowditch, 7 Water St., Boston, Arch., and show a building five stories high, of fireproof construction, to cost, above the land, more than $100,000. It will have a frontage of nearly 29 ft. and will be equipped with freight and passenger elevators, and will be entirely occupied by the Fiske Company. The Boylston St. elevation will be of selected buff tapestry brick of rough texture, laid with very white joints, the first story being entirely of light gray terra cotta and polished granite. The other four stories will be of brick, with gray and green terra cotta trimmings.

HARTFORD, CONN.—Bids for constructing the proposed Children's Infirmary on Holcomb St., will be received by the Board of Contract and Supply, Joseph Buths, Secy., until 11 a. m., Sept. 6. Plans and specifications are with the Charity Commissioners, 222 Pearl St., Hartford.

NEW YORK, N. Y.—Announcement has been made that a hotel costing, with the land and building approximately $3,000,000, is about to be erected in lower Manhattan. The building alone will cost about $1,000,000. The hotel is to occupy the entire block front on the east side of Greenwich St., between Cedar and Liberty Sts. The land to be purchased belongs to the Edward F. Robinson Estate, and includes the Greenwich St. front, on which are several old buildings, and the 12-story Beard Building extending from 120 and 122 Liberty St. through to 121 and 125 Cedar St., giving in all a frontage on Greenwich St. of 113 ft., about 90 ft. on Liberty St. and 80 ft. on Cedar St. The plot contains about 9,250 sq. ft. Francis H. Kimball, Arch., 71 Broadway, has prepared tentative plans for the hotel. It is to be 25 stories high on the Greenwich St. frontage. It is the present intention to retain the Beard Building, adding four stories, thus making it 16 stories high. In the syndicate which has just obtained an option until Nov. 1 to purchase the property, are English capitalists and several men who are interested in the Greeley Square Hotel project on the McAlpin property, Broadway, between 33d and 34th Sts. (noted on June 23), and the proposed Pennsylvania Terminal Hotel opposite the new terminal station in Seventh Ave.

C. B. J. Snyder, Supt. of School Buildings, Dept. of Education, has reported to the Board of Education that the plans are nearly completed and that the contract will be let some time in August for a building to be located on Irving Pl. and 16th St., where the excavation has been waiting for it for over a year. Accommodations will be provided for 3,000 pupils in the rooms in the 8-story structure, the cost of which completed will be $1,131,106.

A 12-story apartment house, to cost $350,000, is to be erected on 81st St., between Columbus Ave. and Central Park West. The lot is 50 × 104 ft. The house is to be built for the Legal Realty & Mortgage Co., of which Peter Herter is Pres. Herter Bros., 5 Beekman St., are Archs.

NEW YORK, N. Y.—Plans have been filed at the Building Department for an 11-story basement and sub-basement building, to be erected on the north side of 50th St., 60 ft. east of Ninth Ave., for the New York Polyclinic Hospital and School. The building will have a frontage of 95.10 ft. and a depth of 96 ft., with a facade of brick and granite, and will be built so as to permit the addition of three stories when necessity requires. Laundry, drug and store rooms will be in the basement; the first floor will contain rooms for the visiting staff, superintendent, visitors, students, patients and trustees. On the second floor will be the medical amphitheatre, four wards, examination rooms, X-ray room, and skin laboratory. The third floor will be given over to the surgical amphitheatre, minor surgical operating room, four wards, and a number of recovery rooms. The mezzanine floor will contain rooms for the treatment of the ear, nose, throat and eye; the children's ward, maternity ward, and museum will occupy the fourth floor; from the sixth to the eighth floor inclusive there will be private rooms. On the fifth floor there will be rooms for nurses and servants' dormitories; the ninth floor will have private operating rooms and wards; the tenth floor will be given over to isolation wards, nurses, officers, and servants' dining rooms; the eleventh floor will be a solarium for private patients, ward patients and for the children. Thomas Rowe, 40 West 42d St., is Arch. Cost, $500,000.

Plans have been filed for a 12-story commercial building to be erected at the southwest corner of Fourth Ave. and 31st St., for the De Forest Estates Corporation, which has leased the building to the Quondam Land Holding Co., Louis Steckler, Pres. The building will be fireproof, with a facade of brick with terra-cotta trimmings, and will have a frontage of 63.2 ft. on the avenue and 115 ft. in the street. The building will be known as the Quondam Building, and will be in the Gothic style of architecture, and is estimated to cost $200,000. Herts & Tallant, 113 East 19th St., are Archs.

NEW YORK, N. Y.—A 6-story brick and terra-cotta apartment house on the north side of 141st St., 100 ft. west of Lenox Ave., will be built for the Diva Realty Co., Barnett Hamburger, Pres. The facade of the building will be of the Flemish style of architecture, the frontage will be 100 ft. and the depth 86.11 ft. There will be accommodations for 43 families, and the structure will be equipped with one elevator. Bernstein & Bernstein, 24 East 23d St., are Archs. Cost, $175,000.

Plans have been filed for a 12-story fireproof apartment house, to be erected at the southeast corner of Riverside Drive and 102d St., for the Rockledge Construction Co., Vincent J. Slattery, Pres., at a cost of $300,000. The building will have a frontage of 75 ft. on the drive and 108.2¼ ft. on the street, where the main entrance will be located. The facade will be of brick, with limestone and terra-cotta trimmings, with a large balcony of stone at the eleventh story. The building will be equipped with a passenger and a service elevator, with accommodation for 36 families, three on a floor, and is to be known as the Rockledge Apartments. Evan T. Macdonald is Arch., 41 West 33d St. Estimated cost, $300,000.

An apartment building is to be built at the corner of Hicks and Montague St., Brooklyn, adjoining the Heights Casino, and work has been commenced on it. The Casino Mansions is to be the name of the structure, and it will be owned by the Casino Mansions Co. The Directors of the company are: Alexander M. White, Pres.; John Greenough, Josiah O. Low, Enos S. T. Richardson, Walter Shaw Brewster and Edward A. Freshman, Secy. and Treas., 40 Wall St., New York. William A. Boring, 32 Broadway, New York, who designed the Heights Casino, is Arch. The building, which will be fireproof, will occupy a plot of ground 65 × 100 ft., having its greatest width and main entrance on Hicks St. The exterior will be of the Flemish style of architecture, in conformity with the Casino. It will contain from ten to fourteen housekeeping apartments, two on each floor above the first floor, which contains two doctor's apartments and additional servants' quarters. The building will be steam heated, lighted by electricity and equipped with separate electric passenger and service elevators. The floors will be hardwood, the trim will be generally white enamel with mahogany doors. The drawing rooms will be 15 × 26 ft.; the dining rooms, 15 x 21 ft.; the kitchen, 12.9 × 18.6 ft., and the main bedrooms, about 14 × 15 ft. There will be two apartments on each floor, one containing nine rooms and three baths, the other eight rooms and two baths.

NEW YORK, N. Y.—The following bids were received on July 25 by C. B. J. Snyder, Supt. School Bldgs., Dept. of Education, for the general construction, etc., of new Public School No. 165 on Lott and Hopkinson Aves., and Amboy St., Borough of Brooklyn: Peter Clearey, $223,900; P. M. O'Brien, $236,297; H. C. Stowe Construction Co., $227,300; Kerr & Krinkle, $240,847; T. H. Clarke Co., $223,600; Keenon & Corrigan, $228,400; P. E. Henningham, 1 Madison Ave., New York, $219,480; William Werner, $229,980; John F. Walsh Construction Co., 1 Madison Ave., New York, $223,900; Charles Willie, $228,560; George F. Driscoll, $230,998; A. L. Guidone & Co., $224,144; Charles H. Peckworth, 415 Hudson St., New York, $224,943; James McArthur, 22 Ormond Pl., Brooklyn, $219,447.

The following bids were received on July 25 by the Department of Public Charities for providing all the labor and materials necessary for the masonry, steel and iron work, carpentry, electric work, heating and ventilating, plumbing, etc., of the improvements in the operating room, City Hospital, Blackwell's Island, Boro. of Manhattan: George Hildebrand, 38 Park Row, $41,[illegible]; Kelly & Kelley, 45 East 42d St., $47,[illegible]; William Werner, $45,800.

NEW YORK, N. Y.—Bids are asked by R. Waldo, Fire Comr., until 10.30 a. m., Aug. 8, for additions and alterations to the quarters of Hook and Ladder Co. 101, located on Broadway, near Main St., Tottenville, Boro. of Richmond.

BUFFALO, N. Y.—The American Household Storage Co. will build a [illegible]-story and basement addition, 51 × 62 ft., to its warehouse at 297-299 Niagara St. The building will be of reinforced concrete and structural iron, with concrete roof. H. [illegible] Wilkes is Pres., 297 Niagara St.

The University of Buffalo, Herbert N. Williams, Chn. of Com., 24 High St., will build an addition to the medical laboratory, High St., near Main St. The addition will be 56 × 48 ft., two stories and basement, of brick, terra-cotta and steel. George Cary, 101 West Huron St., is Arch.

OSWEGO, N. Y.—Franklin B. Ware, State Arch., Albany, N. Y., has completed plans for the school building, 300 × 17[illegible] ft., to be erected on Bridge St., by the State Board of Education. It will be built of [illegible] brick and terra cotta and will cost $340,000. WILLS & MARVIN, 1170 Broadway, New York City, the general contractors, are receiving bids on all sub-contracts.

UTICA, N. Y.—The New York Central R. R. Co. has preliminary plans under way for a passenger station, of brick and granite, 100×200 ft., four stories, estimated to cost $500,000. The company also has plans nearly completed for two freight houses, a receiving house, 60 × 700 ft., and a forwarding house, 30 × 500 ft., both 1½ stories, of brick and wood. G. W. Kittredge is Ch. Engr., Grand Central Station, New York.

ITHACA, N. Y.—Cornell University will build a chemical laboratory, 40 × 80 ft., three stories and basement, of brick and stone, to cost $50,000. Henry Whitfield, 160 Fifth Ave., New York, is Arch.

ROME, N. Y.—The Rome Savings Institution will build a stone and brick bank building, 34 × 93 ft., to cost $50,000. Samuel H. Beach is Pres., 128 East Dominick St. T. S. Vischet, 425 Fifth Ave., New York, is Arch.

*OLEAN, N. Y.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Aug. 31, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring, of the U. S. post-office at Olean, N. Y.

ELMIRA, N. Y.—The Wycoff Estate, care Wycoff Wood Pipe Co., will erect a 5-story and basement store building, 59 × 66 ft., on West Water St., of reinforced concrete and brick, fireproof. Pierce & Bickford, 120 Lake St., are Archs. F. H. F. JOHNSTONE, Longwell Hotel, Elmira, N. Y., has been awarded general contract.

JAMESTOWN, N. Y.—The Board of Education, R. P. Rogers, Supt., will build a grade school on Euclid Ave., 72 × 108 ft., two stories and basement, of brick and hollow tile, to cost $50,000. C. C. Pederson, First National Bank Building, is Arch.

RYE, N. Y.—Plans for the $125,000 clubhouse which the members of the American Yacht Club expect to build, are now in the hands of the Board of Governors. They were drawn by Donn Barber, 24 East 23d St., New York, a member. The building will be erected on the site of the present house, but will be nearly twice the size. It will be of stone and wood, with a dining room capable of accommodating 300. There will be 30 apartments, with baths, social, drawing, billiard and retiring rooms, swimming pool and a magnificent veranda. The ground will have a promenade, squash and tennis courts, a bathing beach, and the sheds will be replaced with a motor house to accommodate 50 cars. Work will be commenced on the structure early in October, when the club goes out of commission.

ROCHESTER, N. Y.—Herbert W. Pierce, Fire Marshal, has granted a permit for the construction of a 5-story brick building on Litchfield St. for James Cunningham Son & Co. The company will manufacture automobiles. The new structure will be 120 ft. wide, 127 ft. long and 64 ft. in height. Cost, $50,000. Jos. H. Oberlies, Granite Bldg., Rochester, is Arch. The masonry work will be done by HENRY STALLMAN SONS and the carpenter work by F. H. RAPP & CO.

NEWARK, N. J.—The following bids were received on July 19 by the Board of Education for building the proposed Ridge School: William G. Sharwell, $77,963, masonry and carpentry; G. M. Peckworth, 415 Hudson St., New York, $88,981, except iron and engine equipment, $107,461, except iron; Ross Buch Co., $102,138, masonry, carpentry, steel, roofing and painting; Ruggles-Robertson Co., $99,600, masonry, roofing, carpentry and painting; Ind. Engineering Co., $113,394 complete; Conroy Bros., $91,829, masonry, iron, roofing, carpentry and painting; Wm. M. Fissell & Co., 1133 Broadway, New York, $99,176, masonry, iron, roofing, carpentry and painting; Cramp & Co., 25 East 26th St., New York, $91,442, general construction.

BROWN MILLS N. J.—Seymour Davis and Paul A. Davis, Archs., 1600 Chestnut St., Philadelphia, Pa., are planning a 5-story and basement hotel to be built in Brown Mills, N. J., for the Brown Mills Hotel Co., at a cost of about $100,000.

PITTSBURG, PA.—Through the Real Estate Trust Co., a contract has been let to the GEORGE HOGG CO., of Braddock, Pa.

for the construction of a 6-story warehouse to cover 74 × 110 ft. on Eighth St., below Penn Ave., and to cost $80,000. The building will belong to the Devilliers Land Co., which is having it built for the Lindsay Hardware Co. The building is to have a brick exterior and will be fireproof and floodproof, and constructed to carry great weight.

E. S. Reilly & Co. has sold for the John E. Wainwright heirs to the Kipp Land Co., 45 × 176 ft. at the southwest corner of Negley Ave. and Elmer St., Shadyside District, and on the lot the new owner will erect an apartment house, costing about $100,000. The building will be three stories high and will cover the entire lot.

ELIZABETHTOWN, PA.—Plans for the erection of the Masonic Home at Elizabethtown, Pa., have been sent sealed by the Architects' Jury, headed by Prof. Warren P. Laird, of the Architectural Department of the University of Pennsylvania, Philadelphia, Pa., to George W. Guthrie, Pittsburg, Grand Master of the Grand Lodge of Pennsylvania. Of the [illegible] submitted six were selected, one of which was recommended as the best. The home will cost $350,000, and will be a scattered group of buildings erected on 210 of the 957 acres and will accommodate 700 persons. The final report of the committee will not be made for two months.

PHILADELPHIA, PA.—The William A. Porter Estate has sold to the Bartlett Garage Inc., for $150,000 a plot of ground, including the buildings, at the northeast corner of 21st and Market Sts. The plot is 220 × 190 ft. JAMES G. DOAK & CO., 1240 Chestnut St., have been awarded the contract for the erection of twelve 4-story steel and brick buildings to cost $150,000.

Richard Van Cleave will erect 68 2-story houses on Felton St. and 26 2-story brick houses on Ruby St. The entire cost will be $113,100.

Title has been taken by Herbert D. Allman from Charles Wurts, Jr., to the residence at the northwest corner of 17th and Walnut Sts. The lot measures 24.9 × 125 ft. On it will be erected a 7-story building which has been leased to the Estey Piano & Organ Co.

A 4-story chemical building to cost $50,000 will be built by the Frankford Hospital at 4920 to 4926 Frankford Ave.

Bids will be received by the Committee on Property of the Board of Education, Room 292, City Hall, until 2.30 p. m., Aug. 1, for the following work: Wings to Glenwood School; 28th Section, altering school buildings in West Phila, Germantown and Frankford for high school purposes; new floors, sanitary improvements, telephone systems, paving, boiler and heater repairs, painting, pointing, new iron railing, etc., at various school buildings.

BRADFORD, PA.—Bids are asked by James Knox Taylor, Superv. Arch, Treasury Dept., Washington, D. C., until 3 p. m., Aug. 29, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. post-office at Bradford, Pa.

ALLENTOWN, PA.—Bids will be received until 4 p. m., Aug. 3, by T. P. Wenner, Secy. of the Allentown School District, for the erection of a 10-room school house on Union St., between Seventh and Eighth Sts., Ruhe & Lange, 10 North Sixth St., Allentown, Archs., and for an 8-room school building on 15th St., between Early and Andrew Sts., Jacoby & Weishampel, Archs., Commonwealth Bldg., Allentown.

ERIE, PA.—The Marine National Bank, William B. Trask, Pres., will erect a 6-story and basement bank and office building, 52 × 155 ft., at State and Ninth Sts. It will be built of brick, terra-cotta and structural iron. J. C. M. Shirk, 421 Chestnut St., Philadelphia, is Arch.

GIRARD, PA.—The Board of Education, Dr. A. D. Baxter, Pres., will build a 2-story and basement high school building, 52 × 126 ft., with a wing, 50 × 50 ft., of brick and stone, to cost $40,000. P. P. Beebe, Fredonia, N. Y., is Arch.

GREENSBURG, PA.—The contract for the proposed Pennsylvania R. R. depot has been awarded to the firm of IRWIN & LEIGHTON, Franklin Bldg., Philadelphia. The station building, without any of the approachse, will cost about $70,000. It will be about 120 × 40 ft., a 2-story structure with a tower 60 ft. in height, surmounted by four clocks, one on each side, each lighted by eight electric lights.

BALTIMORE, MD.—A building will occupy the site of the old Athenaeum Club, on the northeast corner of Franklin and Charles Sts., recently purchased by Mr. Thomas O'Neill for $60,000. The structure will be four stories high and will be built either of brick and terra-cotta or Indiana limestone. The ground floor will be fitted up with stores, one large one on Franklin St., and four smaller ones along the Charles St. side. The rest of the building will be divided into business apartments for tailoring purposes, dressmakers and milliners. The building will cost about $70,000. The plans were prepared by Baldwin & Pennington, Archs., Professional Bldg.

The contract for practically rebuilding Public School No. 60 at Francis and Clifton Sts., has been awarded to the FIDELITY CONSTRUCTION CO., at $53,300. The work will be started immediately so that the school may be ready in the Fall.

BALTIMORE, MD.—The Engineering-Contracting Co., 502 St. Paul St., are the lowest bidders on the proposed office building for the United States Fidelity & Guaranty Co., at German and Grant Sts., to have seven stories, steel frame, brick, granite and limestone, gas and electric lighting, elevators, plumbing. The low bid was $108,000. Otto G. Simonson, American Bldg., is Arch. Noted last week.

Sub-bids are being received by the PITTSBURG CONSTRUCTION CO., 787 Fifth Ave., New York, for the proposed hospital buildings on the Johns Hopkins Hospital Grounds, from plans by Grosvenor Atterburg, 18 West 34th St., New York. Cost, $250,000. It will be of brick and stone, fireproof, and four stories high. Newton & Painter, Professional Bldg., are Engrs.

BALTIMORE, MD.—Plans and specifications for a theater at 408-10 East Baltimore St. have been finished by Otto G. Simonson, American Bldg., Baltimore, for the Knickerbocker Amusement Co., New York. Brick, slag roof, steam heat, electric lighting, terrazo work will be used. Bids will be received in a few days.

OWINGS MILLS, MD.—Plans are now in progress for the school building for the Maryland Training School for the Feebleminded to be erected at Owings Mills from plans prepared by Ellicott & Emmart, Archs., Union Trust Bldg., Baltimore. Cost, $150,000.

NORFOLK, VA.—Application has been made for a permit to construct a Norfolk terminal station and union passenger station and a 9-story office building in this city to cost approximately $1,000,000. The terminal will be used in common by the Virginia, Norfolk & Southern and Norfolk & Western railways. It is expected that later other roads may come into the union passenger station, which will be on East Main St., near the present depots of the Virginian and Norfolk & Western railways. Proposals are to be asked for and construction will begin in August. C. S. Churchill is Ch. Engr., N. & W. Ry. Co., Norfolk.

WHEELING, W. VA.—Bids are asked by Capt. F. W. Altstaetter, Corps Engrs., U. S. A., Wheeling, until 11 a. m., Aug. 23, for erecting two lock houses, three buildings for offices and warerooms and four outbiuldings on Little Kanawha River, W. Va.

TROY, ALA.—James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., has rejected all bids received on July 5 for the construction of a post-office building at Troy, Ala., as being in excess of the appropriation available. A list of bids was given on July 7.

MONTGOMERY, ALA.—Hutchisson & Chester, of Mobile, have been selected, in competition, to prepare plans for the Masonic Home for widows and orphans, which the order in Alabama will erect here. There is to be an administration building of three stories and a basement, and two cottages of two stories and a basement each. As soon as the architects can make up the blue prints bids will be called for. The buildings will represent, when completed, an investment of $75,000. The building committee is composed of Ben Jacobs, of Birmingham, Chn.; H. Lee, of Montgomery; A. E. Bloch, of Mobile, and D. C. Carmichael, of Dothan.

MEMPHIS, TENN.—The Louisville & Nashville R. R. and the Nashville, Chattanooga & St. Louis Ry. companies have plans for two freight houses, one for inbound and the other for outbound business, at Memphis, Tenn. The inbound freight house will be 60 × 320 ft., of brick and steel, fireproof construction, two or four stories in height, and the outbound house will be 50 × 320 ft., one story, of brick and steel, and fireproof. The total cost will be about $100,000. W. H. Courtenay, Louisville, is Ch. Engr., L. & N. R. R.

KNOXVILLE, TENN.—The Miller Store Co. will build a 10-story structure, to cost exclusive of furnishings, fixtures, etc., about $200,000.

KNOXVILLE, TENN.—Plans for the Holston National Bank's proposed $350,000 office building have been completed and will soon be offered to contractors for bids and work will begin by Feb. 1. The building, which is to be located at the northwest corner of Gay St. and Clinch Ave. at the Rosenthal corner, will be twelve stories above the street, and will have a deep basement. It will front 40 ft. on Gay St. and extend 150 ft. on Clinch Ave., to an alley. Joseph P. Gaut is Pres. of the Holston National Bank; D. A. Rosenthal, Vice-Pres.; R. W. Brown, Cashier; J. B. Jones, G. P. Chandler, James H. Cowan, U. D. Beeler, Cecil H. Baker, L. M. G. Baker and Frank A. Weiss, Directors.

MARYSVILLE, OHIO.—Bids are asked by the Ohio State Armory Board, B. L. Barger, Secy., Columbus, Ohio, until noon, Aug. 1, for the construction, complete, including all branches of the work, of an armory building at Marysville, Ohio. Charles Insco Williams is Arch., Callahan Bldg., Dayton, Ohio.

CRESLINE, OHIO.—Plans are being prepared by Howard & Merriman, Capitol Trust Bldg., Columbus, Ohio, for a $50,000 school building, to be erected by the Board of Education.

CHILLICOTHE, OHIO.—The Scioto Valley Traction Co., which has headquarters in Columbus, announces that it will begin the construction soon of a passenger station at Chillicothe to cost about $40,000. F. A. Davis, Columbus, is Pres. and Gen. Mgr.

ANDERSON, IND.—The City Council has purchased a site east of the court-house on which to erect a city hall building. Bids will be invited as soon as plans can be completed.

RICHMOND, IND.—The Commissioners of Wayne County have rejected all bids received for the construction of a county infirmary and will ask for new bids on modified plans and specifications.

COLUMBUS, IND.—The Commissioners of Bartholomew County are asking for bids for remodeling and enlarging the county jail. Elmer E. Dunlap, State Life Bldg., Indianapolis, is Arch.

PENNVILLE, IND.—C. H. Houck, of Bluffton, has been retained to prepare plans for a school building at Pennville. Lowel P. Grisell, Trustee.

BROOKVILLE, IND.—L. B. MILLIKAN, State Life Bldg., of Indianapolis, has been awarded a contract to remodel the courthouse, at $82,600.

BRAZIL, IND.—Bids will be asked by Mrs. Charles Minshall, for constructing an apartment house on Franklin St., as soon as plans are completed. Mack Johnson is Arch.

INDIANA.—Congress has appropriated money or the construction of Federal buildings in Indiana as follows: Bloomington, Brazil, Wabash, New Albany, Frankfort, Gary, Mishawaka, New Castle, Portland, Seymour, Huntington, Mount Vernon and Washington. James Knox Taylor is Superv Arch., Treasury Dept., Washington, D. C.

DETROIT, MICH.—F. T. Bancroft, Ford Bldg., has let the following contracts for a 2-story and basement store building, 150 × 200 ft., for Goldberg Bros., 225 Woodward Ave.; Masonry, to HORTON & STONER, 223 Avery St.; carpentry, to SCHMEID, SISMAN & CO., 391 Beaufait St.; composition roofing, to PUDRITH & CANDLER, 74 Brush St.; structural iron work, to the RUSSEL WHEEL & FOUNDRY CO., Joseph Campau and M. C. R. R. The building is to cost $50,000.

Rogers & McFarlane, Penobscot Bldg., are preparing plans for a 6-story and basement store building for the Whitney Realty Co., T. W. McGregor, Secy., Ford Bldg. The store will be leased to L. B. King & Co., crockery dealers, 103 Woodward Ave.

GRAND RAPIDS, MICH.—Smith, Hinchman & Grylls, Washington Arcade, Detroit, and Robinson & Campau, Grand Rapids, Mich., have let the general contract for a 10-story store building, 30 × 140 ft., for the Herpelsheimer & Co., Grand Rapids, to HANSER, OWEN & AMES, of Grand Rapids; steam heating, to the CENTRAL BOILER & SUPPLY CO., Grand Rapids. The building is to cost $40,000.

SAGINAW, MICH.—C. L. Cowles, 114 North Washington St., Saginaw, Arch., has let the following contracts for the proposed 5-story warehouse for Symons Bros., to cost $60,000: Carpentry, to WINKER REINERT; masonry, to J. H. QUALLMAN.

CHICAGO, ILL.—Marshall Field & Co. have in prospect the construction of a 12-story building on the land at the southeast corner of Fifth Ave. and Polk St., 120 × 100 ft., for which plans have been prepared by D. H. Burnham & Co., Archs., Railway Exchange Bldg. The building will be devoted to warehouse purposes. The cost has not been determined. The building will stand north of the structure now being erected by the Wells-Fargo Express Co. The value of the land on which the Field building will stand has been placed at $121,255 by the Board of Review.

CHICAGO, ILL.—A distributing station, to cost about $300,000, is to be erected by the Standard Oil Co. on property purchased recently from the Chicago Title & Trust Co., as Trustee, on Leavitt St., at the northwest corner of 14th St. The land fronts east and consists of 38 lots, 454 × 251 ft. The building will be a 3-story brick and stone warehouse, 100 × 200 ft. in dimensions, and work will be commenced at once, so that the structure will be completed by this fall. It is stationed on the Baltimore & Ohio terminal.

BELOIT, WIS.—James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., has awarded contract for the construction of a post-office at Beloit, Wis., to W. J. McALPINE, of Dixon, Ill., at $67,434.

KIMBERLY, WIS.—The Kimberly-Clark Co., of Neenah, Wis., will erect a raw stock warehouse in connection with its paper mill at Kimberly. The building will be four stories high, 70 × 200 ft.

REEDSBURG, WIS.—The Building Committee for the new county asylum has awarded the following contracts: Building, APPLETON CONSTRUCTION CO., of Appleton, Wis., at $49,179; heating, DOWNEY & KRUSE CO., Milwaukee, $6,367; electrical work, HERMAN ANDRAE, Milwaukee, $3,100. The plumbing has not been let, although two bids were received: Reedsburg Hardware Co., $2,285; the Patterson Co., $2,298.

MILWAUKEE, WIS.—A building permit has been issued to the Edward Schuster Co. for its proposed department store to be erected at Twelfth and Vliet Sts., three stories, of reinforced-concrete construction, with elevators, etc. Cost, $160,000.

MINNEAPOLIS, MINN.—Plans for a union station, to cost $3,650,000, have been submitted to the Commercial Club of Minneapolis by Frost & Granger, Archs., The Temple, Chicago. The plan includes trackage on all lands lying between Third Ave., North, and Third Ave., South. There will be 30,000 lin. ft. of rails. The station will have two towers and a waiting room, 90 × 180 ft.

ST. PAUL, MINN.—Bids will be received by C. H. Johnston, Arch., 715 Capital Bank Bldg., city, for the construction of the superstructure of the Young Women's Christian Association building on West Fifth St. It will be five stories high, of pressed brick and cut stone, fireproof construction, 100 × 120 ft. The foundation has been completed by the George J. Grant Construction Co., city. The structure will be reinforced with concrete throughout and will cost $250,000.

FERGUS FALLS, MINN.—Bids are asked by the State Board of Control, Charles Halvorsen, Chn., until 2 p. m., Aug. 1, for the erection and completion of alterations and additions to kitchen building, addition to laundry building and addition to main corridor of the State Hospital for the Insane at Fergus Falls, Minn. Plans were drawn by C. H. Johnston, 715 Capital Bank Bldg., St. Paul. Brick, cut stone and fireproofing, as well as steam heating, electric lighting and plumbing are included. Cost, $40,000.

LEAVENWORTH, KAN.—The Chicago Great Western R. R. Co., which has just purchased the bridge across the Missouri River at Leavenworth and the terminals connected with it, has made arrangements to build a passenger station in this city for the joint use of itself, the Rock Island and the Burlington railroads. It has also arranged to use the Missouri Pacific tracks from Leavenworth into Kansas City instead of the Burlington tracks. L. C. Fritch, Chicago, Ill., is Ch. Engr.

RUGBY, N. DAK.—Bids will be received until Aug. 10 by H. Albertson, County Audr., for the general construction of the cut stone, fireproof court-house, jail and sheriff's residence here. Buechner & Orth are Archs., 601 Manhattan Bldg.. It will be two stories, having steam heating, electric lighting and plumbing. Cost, $90,000.

ELLENDALE, N. DAK.—Bids are being received by the County Auditor here for the construction of a cut stone, fireproof, two-story court-house to be built here. Buechner & Orth are Archs., Manhattan Bldg., St. Paul, Minn. Cost, $100,000.

KANSAS CITY, MO.—A building for housing the Board of Trade, the Commercial Club and its allied organizations is to be built by a stock company at a cost of $1,500,000. The building will be at Twelfth St. and Baltimore Ave., in the center of the city. It will be 18 stories in height and will be completed within the year.

ST. LOUIS, MO.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Aug. 26, for the installation of a steam heating and ventilating apparatus, etc., for the U. S. post office building at St. Louis, Mo.

LITTLE ROCK, ARK.—According to announcement made here recently the Rock Island Co. will build passenger and freight depots here and make other improvements, the total to cost $500,000. Three blocks of grounds near the business district have been bought by the railroad for the improvements. D. G. Reid, 115 Broadway, New York, is Pres.

HOUSTON,, TEX.—The contract for the erection of a 6-story building for the Bering-Cortes Hardware Co. has been awarded to the JAMES A. STEWART CONSTRUCTION CO., of Houston. It is stated that the cost of the building will be between $90,000 and $100,000 when completed. Plans for the building, which is to be of reinforced concrete and fireproof, were drawn by the architectural firm of Sanguinet, Staats & A. E. Barnes, First National Bank Bldg., Houston. The building formerly owned by the Bering-Cortes Co. was destroyed by fire in February. The new building will occupy the same site, at Prairie Ave. and Milan St.

DALLAS, TEX.—Plans for the New Oriental Hotel at Dallas, Tex., back of which is St. Louis capital, have been prepared by Barnett, Haynes & Barnett, Archs., Frisco Bldg., St. Louis, Mo., who are to advise in the construction. The general plan will be of the Louis XIV. period. The lobby will be of Circassian walnut and gold, and will extend through two stories to a glass-roofed dome. The dining room is to be somewhat above the lobby floor and will be so that it may be used for a ball room. On the second floor will be a number of private dining rooms, as well as the ladies' parlors. Above the second floor will be the bedroom. Each room will open directly on the hall. All will have direct connections with private baths. In the basement will be the kitchen, grillroom, bar and barber shop. On top of the 20th story will be a roof garden. It is planned to open the hotel in September, 1911. Edward A. Faust is representative for Adolphus Busch, of St. Louis, who is interested.

DALLAS, TEX.—J. B. Wilson is having plans prepared for a 12-story building which he will erect on Elm St. It will have a frontage of 50 ft. and a depth of 100 ft. It is to be occupied exclusively by the Titche-Goettinger Co. Sanguinet & Staats, Archs., First National Bank Bldg., Houston, Tex., are preparing the plans and specifications. Construction work will be started Jan. 1, and it is intended that the building shall be finished by July 1, 1911.

HOUSTON, TEX.—A 10-story warehouse, covering a city block and costing about $1,000,000, is in project for Houston. Plans and specifications for such a structure have been authorized and estimates made as to the probable cost. The general scheme embraces the deepening of the Houston Ship Channel to 25 ft. The building is to be erected by Harvey T. D. Wilson and associates on what is known as Block 51 on the north side of the Bayou, opposite the foot of Main St. According to the architect's drawings, the building is to be 250 × 375 ft., fronting on Willow St., the Southern Pacific tracks and the Houston Ship Channel.

CORPUS CHRISTI, TEX.—D. Rider, of Cambridge Springs, Pa., is associated with John D. Dickinson in the promotion of an hotel project here. The proposed building will cost about $500,000.

EL PASO, TEX.—The El Paso Lodge of Elks have had plans prepared by Krouse & Reeser, Plaza Block, Archs., for a $50,000 clubhouse, three stories high and of brick and terra cotta with marble trimmings.

TACOMA, WASH.—The Northern Pacific Railway Benefit Association, W. L. Darling, Pres., is receiving bids for the general construction of a 3-story pressed brick and cut stone, fireproof addition to the Association's hospital at Tacoma, Wash., according to plans of Reed & Stem, Archs., 649 Endicott Bldg., St. Paul. Cost, $50,000.

SAN DIEGO, CAL.—Plans for a passenger depot, 350 × 50 ft., and two freight sheds, to be built of reinforced concrete and to cost approximately $500,000, have been made by officials of the Atchison, Topeka & Santa Fe system, according to press reports. The depot will occupy the site of the present passenger depot and freight shed, and the two new freight sheds will be located two blocks south of the passenger depot. C. A. Morse is Ch. Engr., A., T. & S. F. System, Topeka, Kan.

SAN BERNARDINO, CAL.—Mrs. C. A. Rouse is having plans prepared for a 3-story apartment house, 100 × 100 ft., to be erected here. It will be built of brick over steel frame.

OAKLAND, CAL.—Bids were received on July 12 for the fire alarm and police telegraph building at 13th and Oak Sts. The bidders are: Williams Bros. & Henderson, Oakland, $45,675; R. Dewar, San Francisco, $46,797; Hostrowser & Pedgrift, Oakland, $44,975; Richon-Ehrhart Engineering & Construction Co., San Francisco, $44,794;

Clinton Fire Proofing Co., San Francisco, $44,950; E. D. Crowley Co., $45,980.

A $300,000 building, six stories, to be constructed of reinforced concrete, is planned for the Oakland Chamber of Commerce. It will be located near Broadway and will be the home also of the various improvement clubs and civic organizations of Oakland. W. E. Mackey is Pres. of the Chamber of Commerce; Frank Leach, Jr., is Chn. of Bldg. Com., and he, with his associates, are working out a schedule for the architects who intend to compete for the structure.

MONROVIA, CAL.—We are officially advised that Albert C. Martin, Arch., H. W. Hellman Bldg., Los Angeles, Cal., is preparing plans for a convent to cost $50,000, to be erected at Monrovia, for Rev. Father J. Conaty. The building will have two stories and basement, brick construction and steam heat. It will be fireproof and 120 × 180 ft. Contracts will be let about Oct. 1.

LOS ANGELES, CAL.—Morgan, Walls & Morgan, Archs., Story Bldg., are preparing plans for an 11-story office building, 34 × 120 ft., to be erected on West Fifth St., between Spring St and Broadway, for the Title Insurance & Trust Co. It will have three floors in the basement, which will be 40 ft. deep, will be fireproof with steel frame, brick walls, and glazed terra cotta and pressed brick facing, hollow metal interior trim. Estimated cost, $300,000.

BAKERSFIELD, CAL.—The Roman Catholic Parish of Bakersfield has had plans prepared for a 3-story hospital building, to be erected on the block surrounded by Truxton Ave., 16th, B and C Sts. The building will be of brick and stone with hollow tile partitions, elevator, steam heat, laundry plant and garage. Cost, $50,000.

NAPA, CAL.—Bids will be received until Aug. 9 by the State Department of Engineering, Sacramento, for the erection of a group of buildings at the Napa State Hospital.

*SAN FRANCISCO, CAL.—Bids are asked until 3 p. m., Sept. 1, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for painting, etc., at the U. S. post-office, court-house, etc., at San Francisco, Cal..

PHOENIX, ARIZ.—H. C. Thomas has commissioned an architect to draw plans for a $50,000 hotel building to be erected near the Indian School here. It will be of Arizona sand stone construction.

SALT LAKE CITY, UTAH.—W. N. Griffin is having plans prepared for a 3-story frame and plaster apartment house, 50 × 100 ft., to be erected on East First South St. A row of 20 cottages will be erected in the rear. Cost of entire work, $50,000.

MONTREAL, QUE.—The Building Committee of the Y. M. C. A. has about completed the extension plans upon which it has been working. It is expected that bids will be invited at once for the future headquarters on Drummond St., and the two centers at Westmount and Fairmount. Extension is contemplated also in another locality, the name of which will be given out when the site is secured. When all these projects are achieved, the Y. M. C. A. will have five local branches besides its headquarters. The Westmount center will be situated at the corner of Arlington Ave. and Sherbrooke St. The building will contain about 25 rooms to be used as dormitories. There will be a fully equipped gymnasium and a swimming bath. The same intentions prevail at Fairmount. The basement for the headquarters building is being completed and the site of the power-house excavated. The headquarters building will contain 150 dormitories, baths and two gymnasiums, one for men and one for boys.

MEXICO CITY, MEX.—It is stated that the Federal Council has been authorized to expend about $1,250,000, U. S. currency, for the construction of parliament buildings here.

WATER SUPPLY—IRRIGATION.

*(*Denotes that this work is advertised in Engineering News.)*

BANGOR, ME.—Bids were opened on July 7 by the Water Board, for the construction of a filtration plant from the plans of James M. Caird, of Troy, N. Y. Contract has been awarded to the NEW YORK CONTINENTAL JEWELL FILTRATION CO., 15 Broad St., New York, at $69,120. The mechanical filter will have a daily capacity of 6,000,000 gallons, with 500,000 gallons clear water well and will require 4,000 yd. excavation, 1,200 cu. yds. concrete and 60 tons reinforcement bars. The Norwood Engineering Co., of Florence, Mass., bid $75,200.

CHELSEA, MASS.—Bids will be received until Aug. 1, by the Metropolitan Water and Sewerage Board, 1 Ashburton Pl., Boston, for laying 1,080 ft. of 36-in. and 730 ft. 30-in. c.i. water pipe at Chelsea. Dexter Brackett is Ch. Engr.

SAUGUS, MASS.—Bids will be received until Aug. 1, by the Selectmen, George Quarmby, Chairman, for furnishing and laying about 12,700 ft. of 10, 8 and 6-in. standard c.i. water pipe, two 10-in., two 8-in. and five to ten 6-in. standard gate valves, five to ten hydrants of approved make, nine to fourteen telescopic iron gate boxes and covers.

NEW YORK, N. Y.—Bids are asked by Henry S. Thompson, Comr. Water Supply Gas and Electricity, until 2 p. m., Aug. 3, for hauling and setting fire hydrants and furnishing, delivering and laying hydrant service pipe and appurtenances in various streets in the Borough of Brooklyn; and hauling and laying water mains and appurtenances and removing existing water mains in Franklin, Hegeman and New Lots Ave.

*NEW YORK, N. Y.—Bids were received by the Board of Water Supply on July 20, for Contract 98, for making test-borings expected to require casing deeper than 200 ft. or to attain a total depth greater than 500 ft., aggregating about 10,000 lin. ft., in the Boroughs of Manhattan and Brooklyn. The bids follow: Healey Sewer Machine & Construction Co., 21 Park Row, $39,175; Sprague & Honwood, $45,275; Edward Christman, $53,862; Phoenix Construction Co., $58,750; Sullivan Machinery Co., $62,750; John B. Rulan & Co., $49,675.

BUFFALO, N. Y.—We are officially advised that the TURNER CONSTRUCTION CO., 11 Broadway, New York, has been awarded contract by the Jacob-Dold Packing Co., for the construction of a reservoir here, 68 × 40 ft. The reservoir is designed to carry a 3-story building to be constructed later.

*CHERRY CREEK, N. Y.—Bids will be received by the Board of Trustees until 8 p. m., Aug. 10, for furnishing the materials and constructing a system of water-works. There will be required approximately the following material: Six miles of 8, 6 and 4-in. c.-i. pipe; 42 fire hydrants, gate valves, concrete impounding reservoir, etc. Witmer & Brown are Engrs., Buffalo, N. Y.

SOMERSET, PA.—The town proposes to sink four wells to a depth of about 40 ft. in the white sand rock, where an artesian stream of water has been located. The citizens will be asked to issue $10,000 or $12,000 of bonds to pipe the water and install a meter system. L. E. Chapin, of Pittsburg, is Engr.

ASHLAND, PA.—The Summit Hill Water Co., on July 2, awarded contract to ANDREW BRESLIN to place a concrete bottom in the reservoir and to make the reservoir two feet higher. The capacity of the reservoir will be increased from 175,000 to 275,000 gallons.

NORTH BRADDOCK, PA.—Plans for the erection of a municipal water plant are being made by officials of the borough of North Braddock, Patrick O'Connell, J. J. Phillips and R. J. Campbell, Councilmen, having been appointed to get data and prices. The Pennsylvania Water Co. now furnishes water in the borough, but its contract expires in three years.

CUMBERLAND, MD.—The City Council has appropriated $5,000 for engineer's service, examinations and plans for a gravity water supply from Evitts Creek, with Bottle Run as an adjunct. The Legislature has authorized a $500,000 bond issue to be approved by voters.

NORFOLK, VA.—We are officially advised that the AMERICAN WATER SOFTENER CO., Mutual Life Bldg., Philadelphia, Pa., has been awarded contract by the Norfolk & Western Ry. Co., for 15 water softening plants, ranging in capacity from 12,500 to 18,000 gallons per hour.

MORGANTOWN, W. VA.—Plans are being prepared for the construction of a 75,000,000-gallon reservoir.

ASHEVILLE, N. C.—M. H. KELLY, Asheville, has secured contract for water and sewer construction here at $12,000.

WEST DURHAM, N. C.—The Erwin Cotton Mill Co. contemplates the construction of a plant to furnish water for its bleachery and the town. Normal capacity will be 1,500,000 gallons.

ATLANTA, GA.—Bids will be received until July 29 by R. V. La Dow, Supt. Prisons, Washington, D. C., for furnishing and delivering at the U. S. Penintentiary, Atlanta, a boiler feed pump.

MONTEZUMA, GA.—The city has voted $5,000 of bonds for the construction of water tower and other improvements to the water-works.

MOBILE, ALA.—Wright Smith, City Engr., is having preliminary surveys made for the extension of the water-works system for the city and suburbs.

OPELIKA, ALA.—See item under Light and Power Plants.

OSYKA, MISS.—The proposed water-works to be constructed here will cost about $20,000. Contract will probably be let in September. Xavier A. Kramer, of Magnolia, is Engr.

COLLINS, MISS.—The city has awarded contract to the GUARANTEE PAVING CO., Collins, for the construction of a reservoir for the water-works plant of reinforced concrete. Capacity 200,000 gallons.

BATON ROUGE, LA.—The city will ask the Baton Rouge Water Co. to extend the water mains about 3½ miles, ten plugs to each mile.

LOUISVILLE, KY.—Bids will be received until 11 a. m., July 30 by the President of the Board of Water Works at the office of the Louisville Water Co. Theodore A. Leisen, Ch. Engr. and Supt. 439 Third St., Louisville, for cleaning out the mud from both sections of the Crescent Hill reservoir and concreting the bottom of both basins.

LEITCHFIELD, KY.—Oelze Bros., of Owensboro, Ky., have bought the water and electric light franchise and have two years to begin the construction of water-works plant, with the right to commence electric light plant in August or this fall.

URBANA, OHIO.—An ordinance has been adopted authorizing a bond issue of $250,000 for the construction of a city water-works plant.

MILLERSBURG, OHIO.—An appropriation of $8,000 has been made for the extension of the water works system. Bids for the work will soon be asked.

INDIANAPOLIS, IND.—The Indianapolis Water Co. F. C. Jordan, Secy., 123 Monument Pl., is considering the construction of a dam at Broad Ripple.

COLDWATER, MICH.—The question of installing a power pumping system at the municipal water works is being considered. W. H. Frederick is Supt. Water and Light Plant.

WYANDOTTE, MICH.—Bids were opened on July 13 by the Board of Public Works for a pumping engine and laying intake pipe. The lowest bid was that of Keating Bros., of Detroit, at $16,389.

DETROIT, MICH.—Smith, Hinchman and Grylls, 710 Washington Arcade, have let the general contract for the new pumping station for the city, to F. H. GODDARD, 910 Ford Bldg., at $375,933. B. F. Guiney is Secy. Water Bd.

MARQUETTE, MICH.—Plans and specifications for the city water sterilization plant were received from Hering & Fuller, 170 Broadway, New York, on July 11, and were adopted by the Water Board. Bids for the construction of the building and the necessary tanks and other equipment are to be advertised for at once.

DUNDEE, ILL.—Bids will be received until Aug. 1 by Village Board of East Dundee, Lewis R. Barrett, Pres., for furnishing and laying about 12,840 ft. of from 6 to 4-in. c. i. water mains with 30 hydrants, 23 6-in., five 4-in. valves, etc. W. S. Shields Engineering Co., Hartford Bldg., Chicago, are Engrs.

WINNETKA, ILL.—Bids will be received until July 30 by the Village Trustees for laying a 20-in. intake pipe from the water pumping station of the village for a distance of 3,000 ft. into Lake Michigan.

TOULON, ILL.—We are officially advised that bids will be asked soon for the construction of a water-works plant. Noted on July 14. Arthur Skiner is City Clk.

CHICAGO, ILL.—William G. Krieg, City Arch., has let general contract to the WARNER CONSTRUCTION CO., 112 Clark St., Chicago, for the construction of the pumping station, at 104th St. and Stewart Ave., 200x200 ft., at $250,000.

EAU CLAIRE, WIS.—The Council has decided to build a concrete reservoir near the pumping station for an emergency supply. Capacity, 400,000 or 500,000 gallons.

LA CROSSE, WIS.—The Water Committee of the Common Council has decided to recommend to that body the erection of a new pumping plant at the La Crosse River in Levee Park to cost $251,000. The filters and one boiler are to be eliminated, but can be added later. Water is to be taken from the Mississippi River and run through a sedimentation basin.

CORYDON, IOWA.—See item under Sewers.

DEXTER, IOWA.—See item under Light and Power Plants.

TABOR, IOWA.—The citizens on July 8 voted to issue $5,000 of bonds for water-works. Bids for construction will be received until Aug. 1.

SIOUX CITY, IOWA.—Bids will be received until July 30 by K. C. Gaynor, City Engr., for the construction of 800 ft. of 4 × 5-ft. × 8-in. tunnel and placing 800 ft. of 16-in. c. i. suction pipe. Bids are asked on both brick and concrete.

CHEROKEE, IOWA.—Bids will be received until Aug 2, by William Shardlow, City Clk., for sinking a 6, 8 or 10-in. well at pumping station of the city water-works.

GRANITE FALLS, MINN.—The citizens on July 15 voted to issue $40,000 of bonds for improving the water-works and electric light plant. Henry L. Kaslin is City Clk.

DONNELLY, MINN.—The following bids were opened on July 14 for the construction of water-works from the plans of J. A. Rowat, of Willmar; Des Moines Bridge & Iron Co., Des Moines, Iowa, $6,490; T. W. Schruth, Fargo, N. Dak., $6,725; Rowat & Bennett, Willmar, $6,795; E. F. Webster, St. Cloud, $7,132; Danforth & Frasier, Rochester, $7,298; W. D. Lovell, Minneapolis, $8,464.

FORT LEAVENWORTH, KAN.—Bids will be received until July 30 by Capt. William D. Davis, Q. M., U. S. A., for constructing water mains, meters, etc., at this post.

PITTSBURG, KAN.—The citizens on July 12 voted to issue $300,000 of bonds for water-works. O. T. Jones is City Clk.

CASSELTON, N. D.—Bids will be received until 6 p. m., July 30, by B. D. Youella, City Audr., for constructing a concrete or brick reservoir.

BOWBELLS, N. DAK.—The town has voted to issue bonds for the construction of a water-works system.

BUTLER S. DAK.—The citizens on July 8 voted to issue $8,000 of water-works bonds.

EDGEMONT, S. DAK.—Bids will be received until Aug. 10 by C. A. Hardy, City Audr., for boring and piping with about 2,900 ft. of 4 and 5-in. pipe an artesian well.

REDFIELD, S. DAK.—Bids are asked by the City Council until 8 p. m., Aug. 1, for laying water mains in various streets. H. T. Patch is City Audr.

*PHILIP, S. DAK.—Bids for the construction of a water-works system will be received by the city until 3 p. m., Aug. 8. A. S. Anderson is City Audr.

MILES CITY, MONT.—Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., have completed revised plans for improvements to the water-works, sewer system and electric light plant. Estimated cost, $230,000.

HAMBURG, ARK.—See item under Light and Power Plants.

SAN ANTONIO, TEX.—Bids are asked until Aug. 1 for boring an artesian well. Address C. A. Davies, Frost Bank, San Antonio, for information.

SEYMOUR, TEX.—F. L. DALTON, of Dallas, has secured contract for the construction of water-works.

TEMPLE, TEX.—The Water Commission on July 13 determined on several miles of extension of water mains, mostly in the north part of the city. The 8-in. mains now between the city and the Leon River pumping station, which have been replaced by an 18-in. main, will be taken up and relaid in a belt on the north of the city, following closely the city limits. The 8-in. main will be connected with a 6-in. supply main that will run lateral to the main feed pipe, supplying a large territory heretofore inadequately furnished with water. About 20 additional fire hydrants will also be placed in the section thus covered. A large filtration plant to take the place of the old open reservoir will be built this Fall.

SAPULPA, OKLA.—The City Council has ordered the installation of a filtering plant. Surveys have already been made for the building of a $250,000 water system. The plans of making the Arkansas River as a base of supply has been abandoned, and Rock and Pole Cat Creeks will probably be selected.

FOSS, OKLA.—Plans and specifications for the installation of a water-works system have been accepted by the Council. W. H. Kennedy, is Supt. of Construction. Estimated cost, $25,000.

BOULDER, COLO.—Plans are being considered by the City Council for the improvement and extension of the water-works. Estimated cost, about [illegible],000.

DENVER, COLO.—On Sept. [illegible] the citizens will vote on issuing $8,000,000 [illegible] bonds for the construction of a municipal water-works plant.

COLORADO SPRINGS COLO.—David Tolby, City Engr., is making surveys for the construction of two large reservoirs on the north slope of Pike's Peak. Reservoir No. 9 will have a capacity of 13,32[illegible] acre-ft. and No. 10 about 7,000 acre-ft.

*BOULDER, COLO.—We are officially advised that all bids were rejected by the City Council on July 18, for the construction of a rubble concrete masonry dam at Albion Lake reservoir, Boulder County, dam to be 60 ft. high and the work includes about 13,000 cu. yds. rubble concrete, together with necessary excavation, gate houses, valves, etc. The city will do the work. M. S. Ketchum is Consulting Engr., 438 Century Bldg., Denver.

LAS VEGAS, N. MEX.—The CAMFIELD DEVELOPMENT CO., of Denver, Colo., has received the contract to construct a new irrigation system in the vicinity of Las Vegas, that will reclaim about 18,000 acres, and which will cost approximately $650,000.

CAMAS, WASH.—W. C. Elliott, C. E., of Camas, has presented plans to the Council for a gravity water system, and recommends that the city issue bonds for at least $50,000 to carry through the project. He suggests that two intakes, one on the Little Washougal River and one on Deer Creek be built, so that in case the water becomes muddy on account of logging operations on one stream the supply may be taken from the other.

SPOKANE, WASH.—The Stratford Irrigation Co. has begun negotiations for the enlargement and extension of its system so that 5,000 more acres may be put under irrigation. The original holding of this company was 5,000 acres, located in Grant County, about half way between Stratford and Soap Lake. At that time the company was capitalized for $300,000, but this has recently been increased to $600,000, with a view to practically doubling the magnitude of the project. J. E. Whatley is Pres., Spokane.

BELLINGHAM, WASH.—The Water Board has decided to construct a steam pumping plant and reservoir to supply the citizens of Silver Beach with water.

BANDON, ORE.—A bond issue for $60,000 has been voted for the construction of municipal water-works.

ALTADENA, CAL.—The Rubio Canyon Land & Water Co. will build a reservoir this summer at the mouth of the Canyon. Estimated cost, $15,000.

RED BLUFFS, CAL.—The Sacramento Irrigation Co., a corporation organized under the laws of Oregon, has filed a notice of appropriation on water with the County Recorder, claiming 80,000 ins. of the flowing waters of the Sacramento River for the purpose of operating a pumping plant, which is to be used to divert water from the Sacramento River for irrigating lands in Antelope Valley, east of here. The same company also claims 5,000 ins. of water for irrigation purposes, to be used in irrigating the lands above mentioned. The place where the notice is posted and where the company declares its intention of erecting the pumping plant is on the east side of the river, about three miles north of Red Bluff, on Section 3, Township 27 North, Range 3 West, on what is known as the "Old Matlock Place."

FORT BARRY (Sausalito post-office), CAL.—Bids are asked until 11 a. m., Aug. 6, by Maj. George McK. Williamson, Q. M., U. S. A., Fort Mason, San Francisco, Cal., for the construction of a reservoir, wooden tank, extending mains, etc., at Fort Barry.

HOLTSVILLE, CAL.—Bids will be received until Aug. 9, by the Board of Trustees for furnishing one 40 HP. gasoline engine, one duplex double-action plunger pump, a 50,000-gallon steel tank, a 75 ft. steel tower, and pipe hydrants and joints for the new municipal water system. Specifications are on file at the office of the City Clerk.

FORT MASON (San Francisco post-office), CAL.—Major George McK. Williamson, Q. M., U. S. A., Fort Mason, has awarded contract to A. L. CHAMBERS, 624 Walsworth Ave., Otkland, Cal., for the construction of an 8-in. water main from Presidio to Fort Mason, at $14,947. Bids were opened on July 5.

LODI, CAL.—Contract for furnishing pipe for the water plant, bids opened on July 4, has been awarded to the CRANE CO., of San Francisco, at $17,337.

CISCO, UTAH.—See item under Light and Power Plants.

FRUITLAND, UTAH.—Bonds for $400,000 have been voted by the Fruitland Irrigation Co., E. T. Benshausen, Secy., for the construction of an irrigation system. Nothing further will be done at present.

CALDWELL, IDAHO.—The citizens have voted public improvement bonds for $76,000, including $50,000 for water-works extension, and $26,000 for paving the city streets.

MONTREAL, QUE.—Hering & Fuller, 170 Broadway, New York, have completed the report, it is stated, on the need of installing a filter plant for the city's water supply. They favor St. Lawrence River as the most satisfactory supply. Estimated cost of the filter plant, $1,500,000.

LONDON, ONT.—Bids will be received until July 29 by the Water Commissioners, O. Ellwood, Secy., for the following: Section A

—Two 3,000,000-gallon turbine pumps, 250-ft. head, 750 r.p.m. Section B—Two 250-HP. 750 r.p.m. self-starting synchronous motors with direct-connected exciters. Section C—Two 250-KVA., 3-phase, 13,200 to 2,300-volt, self-cooled transformers. Section D—Switchboard equipment for B and C. Section E—Switchboard equiment for incoming line and outgoing power and lighting line, with lightning arresters, etc. Section F—A 25-KW. single-phase, self-cooled, 2,300 to 110-volt lighting transformer. H. J. Glaubitz is Engr., Continental Life Bldg., Toronto.

HAMILTON, ONT.—We are officially advised that the AMERICAN WATER SOFTENER CO., Mutual Life Bldg., Philadelphia, has secured contract for a water-softening plant for the Toronto, Hamilton & Buffalo Ry. Co., of Hamilton.

CORNWALL, ONT.—We are officially advised that the town proposes to construct water-works and sewage plant. Estimated cost, $20,000. F. Magwood is City Engr.

MEXICO, MEX.—Applications for concessions to use the rivers and smaller streams of Mexico for irrigating purposes have been made to the National Department of Fomento as follows: By M. Dahgren, for permission to use about 16,000 gallons of water per second from the Champayan Lagoon, in the State of Tamaulipas, to irrigate a large tract of land upon his San Francisco hacienda. By Carlos E. Tamez, for the use of about 600 gallons of water per second from the Pabrillo River, in the State of Nuevo Leon, to irrigate a portion of his Purisima de Conchos hacienda. By Pedro Loyola and Luisa L. Vdad de Campos, to use about 1,200 gallons of water per second from the Laja River, to irrigate their lands in the State of Guanajuato. By Jose E. Gaytan, to establish a large irrigation enterprise in the valley of the Yaqui River in the State of Sonora. By Jose Valenzuela, to use the water of the Coatan River in the State of Chiapas to irrigate a large tract of land. By Dionisio Garcia, to construct an extensive irrigating canal system in the State of Michoacan, to irrigate a part of his ranch. By Hipolito Maldonado, to use the waters from the San Juan and Las Liebres Springs, near Agualeguas, State of Nuevo Leon, to irrigate his lands.

SEWERS.

(*Denotes *that this work is advertised in Engineering News.*)

LACONIA, N. H.—The City Council has authorized a bond issue for $20,000 for the extension of the sanitary sewer system. Work will commence at once, construction to be done by the Sewer Department. Charles A. French is City Engr.

*ATTLEBORO, MASS.—Contracts have been awarded as follows by the Committee on Sewerage for Contract B, 11,150 lin. ft. of 30-in. concrete sewer, 240 lin. ft. 20 and 30-in. c.-i. pipe, and 45 brick manholes, to BRUNO & PETITTI, Boston, at $58,876. Contract C, 3,600 lin. ft. of 30-in. concrete sewer, 2,460 lin. ft. of 30-in. c.-i. pipe and 23 brick manholes, to the same contractors at $33,189. Bids were opened on July 6. List of bidders and contracts noted on July 14. J. J. Van Valkenburgh is Engr.

BROOKLYN, N. Y.—Bids are asked by Alfred E. Steers, Boro. Pres., until 11 a. m., Aug. 3, for furnishing all the labor and materials required for constructing sewer in 44th St., between Seventh Ave. and Ninth Ave., with outlet sewers in Eighth Ave., between 44th St. and 49th St.; Ninth Ave., between 44th St. and 47th St.; 47th St., between Ninth Ave. and Tenth Ave., and in Tenth Ave., between 47th St. and 50th St., in the Borough of Brooklyn (abandoned contract, as per Section "Z" of contract, of the Long Island Contracting & Supply Co.)

BROOKLYN, N. Y.—Bids are asked until 11 a. m., Aug. 12, by Alfred E. Steers, Boro. Pres., for constructing sewers in various streets and for repairs to sewers in several streets.

*ROME, N. Y.—Bids have been opened for a sewage disposal plant and separation of storm water sewer at the Rome Custodial Asylum, Charles Bernstein, Supt. Contract was awarded by Franklin B. Ware, State Arch., Albany, on July 14 to ANGELO COLONGELO, 128 Lock St., Rome, at $9,800.

GLEN GOVE, (L. I.), N. Y.—William B. Fuller, 150 Nassau St., New York, has prepared plans for the proposed sewer system at Glen Cove.

NEW YORK, N. Y.—O'LEARY & FLANAGAN, of 245 East 202d St., New York, have been awarded contracts for the construction of sewers in Northern Ave., between 181st St. and 190th St., at $41,248. Bids were opened on July 6. List of bidders noted on July 14.

GLEN COVE (L. I.), N. Y.—George W. Fuller, 170 Broadway, New York, it is reported, has prepared for the Village Improvement Society plans for a sewer system and has estimated the cost at $60,000 to $80,500.

BELLEVILLE, N. J.—The Belleville Township Committee has selected Frank T. Shepard, 749 Broad St., Newark, to prepare preliminary plans for the construction of a sewer system.

NEW BRUNSWICK, N. J.—Bids will be received until 8 p. m., Aug. 1, for sewers in Commercial Ave. and Harvest St., and curb and gutter on Hale St. Fred C. Schneider is City Surv.

PLAINFIELD, N. J.—EDMOND F. SAXTON, 114 Liberty St., New York, has been awarded contract by the city for labor only for constructing a storm sewer. The work includes 265 ft. of 30-in. storm sewer, 375 ft. 24-in. storm sewer, 400 ft. 12 and 15-in. connections, two manholes, 12 inlets. The material will be furnished by the city. Bids were opened on July 5.

RUTHERFORD, N. J.—Bids are asked until 8 p. m., July 29, by the Borough Council for the construction of a lateral sanitary sewer in Woodland Ave. F. A. Stedman is Boro. Clk.

EAST ORANGE, N. J.—Edward S. Pierson, Chn. Special Sewerage Com., has stated that Harrison P. Eddy, Consulting Engr., Boston, Mass., has reported that it will be cheaper to build and operate a sewage disposal plant than to join the Passaic Valley Joint Sewerage Districts. It is stated that this is also true of Montclair, Glen Ridge and Bloomfield, provided they join with East Orange in a co-operative disposal system.

*HADDON HEIGHTS, N. J.—Bids were received on July 19 by the Mayor and Borough Council for construction of certain sanitary sewers and sewage disposal works, being a part of a general sewerage system shown by plans and specifications filed with the Borough Clerk. Approximately, the proposed work consists of about 36,000 ft. of vitrified pipe sewers, 8-in. to 12-in. laid complete, with manholes and flush tanks; a small indeterminate amount of agricultural draintile laid in sewer trench; sewage disposal works consisting of masonry sewage tanks, masonry coke-filled filters, sand filters with earth embankments, piping, valves, siphons, etc. Contract has been awarded to B. F. SWEETEN & SON at $53,000. Work is to be completed in 150 working days.

GLEN LYON, PA.—Bids are asked until 7 p. m., Aug. 3, by the Commissioners of Newport Township for the construction of a 1,200-ft. sewer. Joseph Olszenski is Secy., Alden, Pa.

PLEASANTVILLE, PA.—Plans, specifications and estimates are asked by Borough Council for a sewage disposal plant.

MONACO, PA.—J. L. CONNERS, of Freedom, has secured contract for constructing 12-in. pipe sewers here, at $6,651.

NORRISTOWN, PA.—The lowest bid opened on July 8 for the constructing sewage-disposal plant was submitted by the PITT CONSTRUCTION CO., of Pittsburg, which was awarded contract at $39,728. Albright & Mebus, of Philadelphia, are Engrs.

HARRISBURG, PA.—An ordinance has been presented to the City Council of Harrisburg providing for the construction of a sewer to care for additional drainage for Market St., east of 13th St. Estimated cost, $100,000. M. B. Cowden is City Engr.

PITTSBURG, PA.—Bids are asked by the city until 10.30 a. m., July 29, for the construction of sewers in various streets.

CHAMBERSBURG, PA.—Of the bond issue of $235,000 authorized by election on July 21, $65,000 will be spent in building a sanitary sewer system on the foot front plan, $150,000 will be used to install a gravity water system from the Caledonia State Forestry Reserve, $15,000 will be spent in street paving for street intersections and the public square on the foot front plan and $5,000 will be used for a new fire house.

CENTERVILLE, MD.—Preliminary work of making the surveys for the sewerage system has been completed. Bids will be asked as soon as plans are completed. Robert B. Morse, Palatka St., near Garrison Ave., Baltimore, Md., is Engr. Noted on July 7.

CLIFTON FORGE, VA.—The City Council is considering the issuance of $65,000 of bonds for the construction of sewers, paving streets and sidewalks, building bridges, etc.

RICHMOND, VA.—The Council Com. on Streets is reported to have recommended the construction of a sewer on Broad St., from Adams to Ninth St., at a cost of about $16,000.

ASHEVILLE, N. C.—See item under Water Supply—Irrigation.

MURPHY, N. C.—M. H. KELLY, of Asheville, has received the sewer and water contract here at $12,000.

WEST DURHAM, N. C.—The Erwin Cotton Mill Co. is considering the construction of a sewer system.

SUMTER, S. C.—The City Engr. will prepare specifications for constructing a main line of sewerage for the western half of system, and for repairing the Oakland Ave. line.

CAMILLA, GA.—The city is contemplating sewer construction, terra cotta pipe to be used. Estimated cost, $15,000. T. H. Martin is Engr., 920 Empire Bldg., Atlanta, Ga.

MOBILE, ALA.—Wright Smith, City Engr., is having preliminary surveys made for the extension of the sanitary sewer system for the city and suburbs.

ELLISVILLE, MISS.—Xavier O. Kramer, of Magnolia, Miss., has been selected to prepare plans for the construction of a small system of sewers.

MERIDIAN, MISS.—The city has voted $50,000 of bonds for the improvement of surface and storm drainage system, including laying pipes, building conduits, culverts, bridges, etc., and $10,000 of bonds for extending and improving the sanitary sewer system. W. G. Wetmore is City Engr.

HAMMOND, LA.—The Town Council is considering an issuance of bonds for the construction of a sewer system.

LAKE CHARLES, LA.—The city on July 14 voted $360,000 of bonds for sewers, paving, city hall, etc.

LOUISVILLE, KY.—Bids were opened on July 8 by the Commissioners of Sewerage for constructing Sec. B, Oak St. sewer. The lowest bid was that of Helm & Henderson, of Cleveland, Ohio, as follows: 923 lin. ft. of earth excavation, 54-in. concrete sewer, cut 19 to 22 ft., $9.80; 626 lin. ft. earth excavation, 27-in. pipe and concrete, cut 8 to 17 ft., $8.95; 1,000 lin. ft. earth excavation, 45-in. concrete, 8.5 to 25 ft., $9.25; 25 lin. ft. earth excavation, or arch sewers, $3; 680 cu. yds. concrete masonry, "A," $13.15; 90 cu. yds. concrete masonry, "B," $11; 8 cu. yds. concrete masonry, "A," in junction chambers, $30; 10 cu. yds. excavation below masonry, $2; 10 cu. yds. gravel refill, $2; vitrified pipe, $1,506; 633 lin. ft. pipe laying, 60 cts.; 2,000 lin. ft. 6-in. underdrain, 30 cts.; cleaning up, lump sum, $100. Total, $36,771. Other bids were: Guild & Co., Chattanooga, Tenn., $37,589; American Engineering & Construction Co., Chicago, Ill., $38,816; Henry Bickel Co., Louisville, $39,120; Joseph Ferry & Sons, Pittsburg, Pa., $39,689; L. W. Hancock Co., Louisville, $39,872.

Bids will be received until Aug. 5 by the Commissioners of Sewerage for constructing Sec. "A," of the Western Interceptor, Contract 72.

STRUTHERS, OHIO.—W. E. GARTLAND, of Youngstown, Ohio, has been awarded contract by the city for the construction of sanitary and storm sewers in Short St. and Elm St., at $4,982. Bids were opened on July 6.

AKRON, OHIO.—The City Council has appropriated $4,000 for the purchase of a site for a sewage disposal plant which will be erected about two miles north of Akron. Another ordinance was introduced looking towards the appropriation of $10,000 to start the construction of the plant.

MARION, OHIO.—Bids will be received by the Director of Public Service until noon, July 29, for furnishing the necessary labor and material for constructing a sanitary sewer in Nunnin St. Bids for labor and materials must be separate, and bidders are required to state explicitly the kind of material to be used and to furnish a sample of the same. Charles M. Tobin is Clk.

SOUTH WHITNEY, IND.—The Town Board on July 12 let the contract for the new sewer to AKER & KESSLER, of Columbia City, at $6,774. Estimated cost was $9,000. Other bidders were Gallagher & Erdmann and Dennis Gallivan, of Columbia City, and Derheimer & Co., of Fort Wayne. The sewer is 6,655 ft. in length.

MARION, IND.—F. M. BENNET, of Marion, has secured contract for constructing the 18th St. storm sewer at $8,430. Bids were opened on July 8.

INDIANAPOLIS, IND.—The Board of Public Works has annulled contract for a local sewer in the Parkway from 18th to 30th Sts., and will receive new bids. Estimated cost, $31,000.

FAIRMONT, ILL.—We are officially advised that the city is considering the construction of a surface water drain. Estimated cost, $7,000 to $8,000. Bids will be asked about October. Peter O'Kiely is City Clk.

EAST MOLINE, ILL.—The Council has instructed H. G. Paddock, City Engr., to prepare estimates on the cost of extending the sewer service into new territory south of the Rock Island & Burlington tracks between Tenth and 13th Sts.

BARRINGTON, ILL.—We are officially advised that the city is considering the construction of a sewer. Estimated cost, $40,000. Bids will be asked about Sept. 1. William B. Ewing is City Engr.

MOUNT VERNON, ILL.—We are officially advised that the city is considering the construction of a sewer and septic tank. Estimated cost, $15,000. B. C. Wells is City Engr. Bids will be asked about Aug. 1 to Aug. 10.

LEWISTOWN, ILL.—We are officially advised that the city is considering the construction of sewers, water extension and cement sidewalks. Estimated cost, $36,000. Bids will be asked about September. J. H. Allison is City Clk.

CONNERSVILLE, ILL.—The City Council has awarded contract to BOOTS & GANT for the construction of storm sewer drains, manholes, etc., in Columbia and Illinois Aves. A 12-in. sewer will be constructed at 47 cts. per lin. ft., manholes for $30 each and inlet connections at 50 cts. per lin. ft.

PRINCETON, ILL.—The Board of Local Improvements has taken the initiatory steps for constructing two new sewerage districts. One district lies on the north side and runs from Elm Pl. through Union addition to the present terminus on Euclid Ave., and the other takes in the entire southeastern section of the city. The outlet for the districts will be the present septic tank, and for this purpose the present main sewer, which has its terminus on North Euclid Ave., will be extended farther south and west.

EAST ST. LOUIS, ILL.—Bids will be received until July 30 by the Board Local Improvements, Frank B. Hanna, Clk., for improving Market Ave., requiring 5,092 lin. ft. of 24, 15 and 12-in. sewer pipe, 8,420 sq. yds. vitrified brick pavement, 4,860 lin. ft. sandstone curb, etc.

ALEDO, ILL.—We are officially advised that the city is considering the construction of extensions to the present sewer system. Bids will be asked in about 30 days. W. D. Emerson is City Clk.

MADISON, ILL.—We are officially advised that plans and specifications are about completed for an outlet sewer, complete lateral sewer and a pumping station. Bids will be asked during the fall. B. H. Colby, Security Bldg., St. Louis, Mo., is Engr. C. A. Ulffers is Village Clk.

EVANSVILLE, WIS.—The city has voted for a complete sewerage system and disposal plant. Plans are now being made to commence the work.

DES MOINES, IOWA.—Contracts for constructing 3,965 lin. ft. of clay pipe sewer, bids opened on July 6, have been awarded as follows: To the COOK CONSTRUCTION CO., for sewer in 22d and 23d Sts., at $1.84 per lin. ft., and to T. J. CASSELBERRY, for sewer in East 12th St., at $2.

DUBUQUE, IOWA.—We are officially advised that the city is considering the construction of several sewers and streets. Estimated cost, $50,000. Charles Baumgartner is City Engr.

CORYDON, IOWA.—We are officially advised that the city is considering the construction of sewers and water-works system. Charles P. Chase, of Clinton, Iowa, is Engr.

LEON, IOWA.—Contract for constructing two miles of 6 to 12-in. pipe sewer and a disposal plant, bids opened on July 12, has been awarded to O'FARRELL CONTRACTING CO., of Dubuque, at $10,995. Charles P. Chase, of Clinton, Iowa, is Engr. Noted last week.

COLUMBUS JUNCTION, IOWA.—We are officially advised that the city is considering the construction of sewerage work. Estimated cost, $4,000. Bids will be asked soon. M. D. Hauft is City Clk.

MISSOURI VALLEY, IOWA.—We are officially advised that the city is considering the construction of a sewer system. Estimated cost, $25,000. J. S. Wattles is City Engr.

IOWA FALLS, IOWA.—The construction of a sanitary sewer to cost $5,000 is under consideration by the city. Frank Truman is City Engr. Bids will be asked about Aug. 3.

CARRINGTON, MINN.—Plans and specifications are being prepared by L. P. Wolf, St. Paul, Minn., for the construction of a sewer system including septic tank for Carrington.

ATCHISON, KAN.—The city proposes to construct sewers in District 10 to cost about $20,000.

HORTON, KAN.—Bids will be received until Aug. 2 by the City Council at the office of B. B. Norris, City Clk., for constructing a main sewer and 22 lateral sewers and a purification plant.

BURLINGTON, KAN.—The city proposes to spend $35,000 for the construction of sewers. Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., are Engrs.

O'NEIL, NEB.—Contract for the construction of the sewer system here was awarded on July 15 by the Mayor and City Council to DONOHOE & PETERSON, of Omaha, at $16,507.

REDFIELD, S. DAK.—Bids are asked by the City Council, addressed to H. T. Patch, City Audr., until 8 p. m., Aug. 1, for the construction of sewers in several streets.

SIOUX FALLS, S. DAK.—Stone and pipe sewers for the West Side sewerage system will be constructed. Estimated cost, $160,000. S. B. Howe, of Sioux Falls, is Engr. Bids will be asked in about a month.

MILES CITY, MONT.—See item under Water Supply—Irrigation.

ST. LOUIS, MO.—The Board of Public Improvements has awarded contracts as follows for the construction of sewers: For sewer in the Dale Ave. joint sewer district, to HOFFMAN & HOGAN at $75,154; for the Ellendale sewer, to the CLARK-ANSBRO CO. at $27,126. Bids were opened on July 19. W. B. Dryden is Secy. Bd.

BRYAN, TEX.—The city is considering the proposition to establish sewer, water and electric light plant. Estimated cost, $100,000.

PORTLAND, TEX.—Charles P. Taft, of Cincinnati, Ohio, and associates, are planning, it is reported, the construction of a sewerage system, with John G. Willacy, of Corpus Christi, Tex., in charge of the work.

HOQUIAM, WASH.—A modern sewer system will be installed here. Plans have been prepared for sewering the entire city. Estimated cost, $200,000.

PENDLETON, ORE.—Plans are being prepared for the construction of pipe sewers to cost about $8,000. J. L. Sharon is Chn. Sewer Com.

WEST MARSHFIELD, ORE.—The City Council has awarded the West Marshfield sewer system contract to HUGH McPAIN, the lowest bidder, at $8,440.

SAN RAFAEL, CAL.—Contract for constructing a sewer here has been awarded to HOOG & CO., of San Francisco, at $14,400.

LOS ANGELES, CAL.—Olmstead & Gillelen, Wright & Callender Bldg., have awarded contract to W. A. FRICK, 223 West Second St., Los Angeles, for installing a sanitary sewer system, of vitrified clay pipe, and septic tank, at Beverly Hills for the Rhodes Land & Water Co. at $16,433.

MONTEREY, CAL.—See item under Bridges.

PASADENA, CAL.—See item under Streets and Roads.

STREETS AND ROADS.

(**Denotes that this work is advertised in Engineering News.*)

FORT McKINLEY, ME.—Bids are asked until 10 a. m., Aug. 15, by Capt. Joseph F. Gohn, Constructing Q. M., U. S. A., 655 Congress St., Portland, for the construction of a service road, grading, etc., at Fort McKinley.

SOUTH PORTLAND, ME.—We are officially advised that contract has been awarded by the city to JOHN W. GULLIVER, 120 Exchange St., Portland, at $4,449, for building a section of gravel road about 3,000 ft. in length. Bids were opened on July 19.

BOSTON, MASS.—Bids were received as follows on July 23 by the Bureau of Yards and Docks, Navy Dept., Washington, for work at the Boston Navy Yard for paving between rails of crane track: C. M. Leach, Box 2285, Boston, 20 cts., $3,000 alternate bid; James P. Timulty, 6 Beacon St., Boston, 22 cts.; Worcester Paving Co., Worcester, Mass., 29 cts.; John McCourt & Co., 46 Wait St., Boston, $3,683; C. W. Dolloff & Co., 20 Central St., Boston, 20 cts.; M. McManus Contracting Co., 414 Wood St., Philadelphia, 21.5 cts.; Warren Bros. Co., 59 Temple Pl., Boston, 17.5 cts.; John F. Coleman (Coleman Bros.), Chelsea, Mass., 22 cts.; Jones & Meehan, 10 State St., Boston, 17.8 cts.

BOSTON, MASS.—The Street Department on July 19 awarded three contracts for street and sidewalk work in various sections, which aggregate $125,000: JAMES T. TIMILTY was awarded contract at $25,667 for brick paving on Geneva Ave., Dorchester. Other bidders to receive contracts were JAMES DOHERTY to the amount of $23,727; C. W. DOLLIVER & CO., for $23,865, and JOSEPH B. ROURKE & CO.

HARTFORD, CONN.—The contracts for construction of state road work, bids for which were received on July 18, have been awarded by the State Highway Commissioner as follows:

Town of Middlefield, 12,350 lin. ft. macadam-telford road, 14 ft. wide, including two reinforced concrete arch culverts and one 24-in., one 15-in. and one 20-in. tile culverts, to SUZIO & TONER, Meriden, Conn., at $2.30 per lin. ft. for macadam, $2.95 for telford and 75 cts. per lin. ft. for rubble drain.

Town of Middletown, 6,300 lin. ft. macadam-telford road, 14-ft. wide, including two 24-in., one 15-in., two 18-in. and one 20-in. tile culverts, to ROGER KENNEDY, Middletown, Conn., at $2.49 per lin. ft. for macadam, $3.10 for telford and $1 per lin. ft. for rubble drain.

Plans for the construction of state road work have been received in the office of the State Highway Commissioner as follows: From A. B. Anderson, Engr., 1,726 lin. ft. on the Hazardville road and 7,754 lin. ft. on the Hartford-Springfield turnpike; from R. G. Pike, Jr., Engr., 6,100 lin. ft. on the Cromwell-Berlin Turnpike.

Contract for installing 400 lin. ft. new granite headers, bids for which were received on July 22 by the Board of Contract and Supply, has been awarded to A. S. FREEBURG, Hartford, Conn.

Contract for laying approximately 800 sq. yds. of asphalt pavement on Farmington Ave., bids for which were received by the Board of Contract and Supply, July 22, has been awarded to the SOUTHERN NEW ENGLAND PAVING CO., Hartford, at $24,197. The only other bidder was the Narragansett Improvement Co., Providence, R. I., at $26,711.

*GREENWICH, CONN.—Bids are asked by the Warden and Board of Burgesses until 5 p. m., Aug. 9, for paving on Putnam Ave., with brick, wood, block or bitulithic.

BROOKLYN, N. Y.—Bids are asked until 11 a. m., Aug. 3, by Alfred E. Steers, for regulating and repaving with granite, Class B, on a concrete foundation, the roadway of Clinton St., from Hamilton Ave. to Lorraine St., together with all work incidental thereto; for regulating and repaving with asphalt on a concrete foundation, the roadway of Flatbush Ave., from Nostrand Ave. to the bridge over the Long Island R. R., together with all work incidental thereto; for restoring and repaving with asphalt on a concrete foundation the roadway of Raymond St., from DeKalb Ave. to 50 ft. north of Johnson St., together with all work incidental thereto; for constructing cement sidewalks on both sides of Ridgewood Ave., between Putnam Ave. and Palmetto St., where not already done, and on various other streets in the Borough of Brooklyn.

*MOUNT PLEASANT, N. Y.—Bids for permanent improvement of the highway known as the Albany Post Road, from the north line of the village of North Tarrytown to the south line of the village of Briarcliff Manor, a distance of 1.34 miles, will be received by the Town Clerk of Mount Pleasant, at the Town Clerk's Office, Cortlandt St., North Tarrytown, until 10 a. m., Aug. 13, said work to be done in strict accordance with the plans, drawings and specifications therefor, prepared and approved by E. J. Wulff, County Engr., of the County of Westchester, and adopted by the Town Board of the Town of Mount Pleasant and now on file in the office of Edward F. Hennessey, Town Clk.

BUFFALO, N. Y.—The repavement of Broadway, between Washington and Ellicott Sts., with Medina sandstone has been ordered by the Board of Aldermen in accordance with plans and specifications on file in the Bureau of Engineering; also the repavement of West Ave., 30 ft. in width, between Jersey St. and Porter Ave., with Trinidad pitch lake asphalt, specification A, bids to be advertised for by Francis G. Ward, Comr. Pub. Wks.

LONG ISLAND CITY, (L. I.), N. Y.—Bids were received as follows on July 26 by Lawrence Gresser, Pres. Boro. Queens, for regulating, grading, curbing, recurbing, flagging and reflagging in Payntar Ave., from Vernon Ave. to Sunwick St.: H. J. Mullen, $29,265; Peace Bros., $22,291; Astoria Contracting Co., $16,972; the Green Contracting Co., $18,169; Joseph A. Boyce, $18,922. For regulating and grading in Ely Ave., from a point 148 ft. north of Harris Ave. to Payntar Ave., H. J. Mullen, $36,930; Peace Bros., $23,070; Astoria Contracting Co., $24,365; the Green Contracting Co., $30,330; Joseph A. Boyce, $19,470. For regulating and grading 18th St., from Jackson Ave. to Grand St.: H. J. Mullen, $24,990; Peace Bros., $17,897; Astoria Contracting Co., $21,022; Joseph A. Boyce, $19,070; Green Contracting Co., $21,392. For regulating and grading in Fourth Ave., from Flushing Ave. to Wolcott Ave.: H. J. Mullen, $29,673; Peace Bros., $21,258; Astoria Contracting Co., $24,508; Joseph A. Boyce, $22,543. For regulating and grading in 17th Ave., from Flushing Ave. to Grand Ave.: H. J. Mullen, $12,440; Peace Bros., $11,357; Astoria Contracting Co., $10,037; Joseph A. Boyce, $11,255. For curbing and laying sidewalks in 17th Ave., from Jackson Ave. to Grand Ave.: H. J. Mullen, $12,685; Peace Bros., $10,620; Joseph A. Boyce, $8,853. For regulating, grading, curbing and laying sidewalks and crosswalks on Fifth Ave., from Broadway to Flushing Ave.: Clancy & Van Alst, $25,987; H. J. Mullen, $37,487; Astoria Contracting Co., $25,545; Joseph A. Boyce, $24,821; Peace Bros., $25,698.

NEW YORK, N. Y.—Bids were received as follows on July 25 by George McAneny, Pres. Boro. of Manhattan, for regulating and repaving with granite block pavement on a concrete foundation First Ave., from the north side of Houston St. to the south side of 20th St.: Rafferty Bros., $123,837; Mathew Baird Co., $131,369; W. J. Fitzgerald, 347 West 45th St., $112,025; Atlanta Contracting Co., $120,521; Asphalt Construction Co., $130,006; Haggerty & Drummond, $128,666.

Bids for regulating and repaving with granite block pavement on a concrete foundation, 14th St., from the west side of Ninth Ave. to the east side of marginal street, were received same time as follows: Rafferty Bros., $17,606; W. J. Fitzgerald, $16,348; Atlanta Contracting Co., $17,852; Asphalt Construction Co., $18,729; Haggerty & Drummond, $18,244.

NEW YORK, N. Y.—Bids are asked by Alfred E. Steers, Pres. Boro. of Brooklyn, until 11 a. m., Aug. 10, for regulating, grading, curbing and laying sidewalks on various streets in Brooklyn.

Bids are asked until 2 p. m., Aug. 8, by George McAneny, Pres. Boro. of Manhattan, for regulating, grading and paving various streets in the Boro. of Manhattan.

NEW BRUNSWICK, N. J.—See item under Sewers.

SECAUCUS, N. J.—Bids are asked by the Borough Council until 8 p. m., Aug. 2, for grading, curbing and guttering west side of Sixth St., from Centre Ave. to the southerly line of the Clarendon property; also of both sides of Seventh St. and Hudson Ave., from Centre Ave. to the southerly line of the Clarendon property, and of both sides of Eighth St. and Ninth St., from Centre Ave. to the line of the Adam Zengel property, and of both sides of Front St., from Sixth St. to Hudson Ave. The plans and specifications are now on file in the Borough Clerk's office of said Borough, where they can be seen and examined. Adrian Post is Boro. Clk.

EMSWORTH, PA.—Bids will be received at the office of the Borough Engineers until 4 p. m., Aug. 4, for curbing and laying cement sidewalks on Beaver Ave., from the west line of John W. Stauffer's property to the Ben Avon Borough line. Approximate quantities, 9,350 ft. stone curb, 45,300 sq. ft. cement sidewalk. Plans and specifications can be seen and bidding blanks obtained at the office of McBride Surveying & Engineering Co., Boro. Engrs., 708 Fitzsimmons Bldg., Pittsburg.

TARENTUM, PA.—Bids will be received by W. A. Gibson, Boro. Secy., until 4 p. m., Aug. 6, for grading, curbing and paving East Eighth Ave., from the eastern curb line of Corbet St. to Ormond St. Approximate estimate of quantities is as follows: 3,730 cu. yds. of excavation, 500 cu. yds. excavation for sidewalks, 5,800 lin. ft. curbing, 5,000 sq. yds. paving. Plans and specifications may be seen at the Borough Building, Tarentum.

HARRISBURG, PA.—Bids will be received at the office of the State Highway Department in the Capitol Building, Harrisburg, until 2 p. m., Aug. 10, for the construction of 5,030 ft. of road, extending from the Coraopolis and Carnot Road eastwardly, in Moon Township, in the County of Allegheny. Jos. W. Hunter is State Highway Comr.

FAIRHAVEN, PA.—William E. Harmon & Co., owners of the new allotment known as Overbrook, near Fair Haven, on the Castle Shannon car line, have let a contract to GEORGE FILBERT for laying 90,000 sq. ft. of cement sidewalks on the property. A contract for the paving of the 50-ft. boulevard through the plan will be let shortly.

READING, PA.—Bids will be received by the Board of Public Works until 2 p. m., Aug. 3, for 25,000 sq. yds. of vitrified block paving, and for 3,500 sq. yds. of granite block paving.

CHAMBERSBURG, PA.—See item under Sewerage.

*FORT DU PONT (Delaware City post-office), DEL.—Bids are asked by the Constructing Q. M., U. S. A., Fort Dupont, until 11 a. m., Aug. 25, for the construction of an oyster shell road from Harrisonville, N. J., to Fort Mott, N. J.

TOWSON, MD.—We are officially advised that contract has been awarded to P. F. FLANIGAN & SON, Lexington St., Baltimore, for the improvement of Hillsdale Road, from Liberty Road to Forest Ave., at $9,000. Henry G. Shirley is Roads Engr. Highways Comn., Baltimore County. Bids were opened on July 14.

WASHINGTON, D. C.—The following bids were received by the Commissioners of the District of Columbia on July 19, for grading Evarts St., between 20th and 22d Sts. N. E.: E. G. Gummel, Washington, 74 cts. per cu. yd.; George Hymen, Washington, 47 cts. per cu. yd.

CLIFTON FORGE, VA.—See item under Sewerage.

MORGANTOWN, W. VA.—We are officially advised that in about 30 days the County Court of Monongalia County will let contract for 3,000 lin. ft. of brick pavement 26 ft. wide, with necessary sewers and concrete curb and sidewalks. Robert D. Hennen is Road Engr., Morgantown.

FORT MORGAN, ALA.—Bids are asked by Lieut. Edwin F. Barlow, Constructing Q. M., U. S. A., until 1.30 p. m., Aug. 5, for a brick paved road and cement walks around barracks, mess hall and lavatory.

DOTHAN, ALA.—The contract has been awarded by the county to WIFFORD & WHITAKER for a road to run between here and Cottonwood, and also one from Gordon to Ashford. The county is to pay $1,000 a mile for the work. The road from here to Cottonwood will be thirteen miles long, and from Gordon to Ashford nine miles.

DECATUR, ALA.—Bids will be received by the County Commissioners of Morgan County at their office in the court-house, Decatur, until 10 a. m., Aug. 9, for the following work: Grading, draining and macadamizing the Decatur-Danville Road from New Decatur to the mountain, 5½ miles; grading, draining and macadamizing the Falkville Road, west from Cedar Plains to McKendry's Church, 1½ miles; grading, draining and macadamizing the Lacey Springs Road from Bartee's gin to the river, three miles; grading and draining county road No. 2, east from the county tool house to Wallace drawbridge, 4.5 miles.

MOSS POINT, MISS.—The Board of Mayor and Aldermen will receive bids for grading five miles, approximately, of city streets, until 7.30 p. m., Aug. 1. C. M. Fairley is City Clk.

LAKE CHARLES, LA.—See item under Sewers.

LEXINGTON, KY.—The contract for repaving Main St., which will amount to $65,000, was awarded on July 14 to the ANDREWS ASPHALT & PAVING CO., of Hamilton, Ohio.

*PADUCAH, KY.—Bids are asked by the Board of Public Works until 3.30 p. m., Aug. 23, for constructing sidewalks, etc. A. L. Washington is City Engr.

FOSTORIA, OHIO.—The City Council has adopted resolutions declaring it necessary to improve North St., between the Hocking Valley R. R. and the Town St. sewer; County Line St., from Fremont to High Sts.; High St., from Union St. to County Line St.; Center St., from Caples St. to the Town St.; North St., from Vine St. to Adams St.; Lytle St., from Union St. to County Line St.

TIFFIN, OHIO.—A resolution has been adopted declaring it necessary to improve West Market St., from the west side of Sandusky St. to Elmer St., by paving on stone and gravel foundation. John E. Diemer is Clk.

NEWARK, OHIO.—Bids will be received by the Board of County Commissioners of Licking County until Aug. 4 for grading and macadamizing 2.71 miles of road in Newark and Madison Townships under the provisions of the State Highway Law. Estimated cost, $19,232. J. C. Wonders is State Highway Comr. At the same time the Commissioners will receive bids for grading and macadamizing one mile of road in Newark Township, which is estimated to cost $3,662.

McARTHUR, OHIO.—Bids will be received at the office of the County Commissioners of Vinton County until July 29, for grading and macadamizing 2.8 miles of road in Elk Township under the provisions of the State Highway Law. J. C. Wonders is State Highway Comr. Estimated cost, $12,177.

AKRON, OHIO.—Ordinances have been adopted by the City Council providing for the improvement of Wildwood Ave.; Coburn St., from Bartges St. to Russell Ave.; Voris St., from Main St. to Coburn St.; Euclid Ave., from Edgewood Ave. to a point 300 ft. west of Mallison Ave.; Penfield Ave., from Howard St. to Frederick St.

DELAWARE, OHIO.—Bids were opened on July 15 by the City Engineer for the paving of North Sandusky St. as follows: W. H. Ringwald & Sons, Chillicothe, Trimble block, $29,236; Lambert Bros & Wirt, Delaware, Big Four block, $29,856; William E. McHugh, Springfield, Trimble block, $29,587; Fisbaugh & Karch, Celina, Wassall or Trimble block, $33,103; E. H. Eckert, Toledo, Westrumith asphalt work, $34,340. The contract was awarded to LAMPERT BROS. & WIRT, at $29,856.

COLUMBUS, OHIO.—Bids will be received by the Director of Public Service until Aug. 3 for paving Abbott Ave., from Bryden Road to Main St.; Frankfort St., from Mohawk St. to Sixth St.; Harrison Ave., from Second Ave. to Fifth Ave.; Lazelle St., from Mound St. to Sycamore St.; Ludlow St., from Randolph St. to Chestnut St.; Perry St., from King Ave. to Eighth Ave.; 17th St., from Oak St. to Gustavus Lane; Sixth Ave., from High St. to Wesley Ave.; Third St., from Moler St. to Southwood St.; 22d St., from Livingston Ave. to Columbus St.; Wolfel Ave., from Beech St. to Parsons Ave.

*CANTON, OHIO.—Bids will be received at the office of the Commissioners of Stark County, until 10 a. m., Aug. 5, for draining, grading and paving with brick 2.54 miles of road in Sugar Creek Township under the provisions of the laws of Ohio. J. H. McConnell is County Audr.

LOCKLAND, OHIO.—Contract has been awarded by the village to the M. G. ROTH CONSTRUCTION CO., of Reading, Ohio, for paving with brick 4,041 sq. yds., at $9,489. C. E. Troy is Village Clk. Bids were opened on July 18.

LISBON, OHIO.—Bids were received as follows on July 14 by the County Commissioners for State Highway C, Columbiana County, Petition No. 103, Columbiana and Windles Road: Springer & Rufenacht, New Philadelphia, $18,389; McLane & Armstrong, Lisbon, $19,677; G. A. Gialdini & Co., Girard, $20,909; HARDING & KNISELY, New Philadelphia, $18,349; Rinehart Bros., East Liverpool, $19,400; same (Bessemer No. 2), $18,650; J. G. McGuire & Co., New Brighton, Pa., $20,796; W. S. Gregg & Co., Zanesville, Ohio, $19,378; S. K. De Groodt, Youngstown, Ohio, $20,000.

MILLERSBURG, OHIO.—Bids were received as follows by the County Commissioners on July 13 for State Highway B, Holmes County, Petition No. 266, Millersburg and Nashville Road extension: W. S. Gregg & Co., Zanesville, $11,696; Springer & Rufenacht, New Philadelphia, Novelty block or 20th Century block, $11,680; LEE & GRIGGS, Millersburg, $11,543 (awarded contract).

*CALDWELL, OHIO.—We are officially advised that the village has awarded contract to the KISSNER CONSTRUCTING CO., of Coshocton, Ohio, for about 7,750 sq. yds. of paving and 4,500 lin. ft. of curb, at $1.15 per sq. yd. for vitrified brick, sand filler, gravel foundation, and 40 cts. per ft. for Berea sandstone curb. S. G. Brown is City Engr.

DAYTON, OHIO.—Bids were received as follows by James C. Wonders, State Highway Commissioner, at the office of the County Commissioners at Dayton, for State Highway A, Montgomery County, Petition No. 257, Oakwoood Road: FRANK TEJAN, Dayton, treatment with Carbo Via No. 3, $11,580 (awarded contract); Gephart & Kline, Dayton, $11,582.

RICHWOOD, OHIO.—Bids will be received by Roy L. Jordan, Clk. of the Village of Richwood, until noon, Aug. 6, for furnishing the necessary material and labor for improving Franklin St., from the north line of the Erie R. R. Company's right-of-way to Landon Pike, paving the roadway of the same with vitrified brick or asphalt block to the width of 26 ft. in the middle of the street, and by the construction of the necessary curbs, retaining walls and grading, and excavating of the same.

CINCINNATI, OHIO.—The Kenton County Commissioners on July 19 decided to take the initial step toward providing improved pikes throughout the entire county. The board awarded a contract to the HANNA CONSTRUCTION CO. to rebuild [illegible] miles of county road, according to its system of road making, at $200 a mile.

WELLINGTON, OHIO.—We are officially advised that contract has been awarded to H. L. SHAW, of Lorain, Ohio, for grading, draining, curbing and paving with brick North and East Main St. Bids were opened on July 15.

LOGANSPORT, IND.—The Board of Public Works on July 19 accepted the plans and specifications for the pavement of Broadway, and set Tuesday, Aug. 9, as the date for the hearing. The specifications which were prepared by Harry H. Th[illegible], City Engr., include ten kinds of pavement. The pavements are bitulithic, asphalt, wooden block, sheet asphalt, brick, asphalt macadam, Hassam, tarvia filled macadam, bitumas and cement concrete.

WASHINGTON, IND.—The Commissioners of Daviess County will receive bids until 10 a. m., Aug. 6, for the construction of the Prather gravel road in Washington Township. Thomas Nugent is County Audr.

BLOOMFIELD, IND.—The Commissioners of Greene County will soon ask for bids for the construction of 15,340 ft. of gravel road in Jefferson Township, road to be known as the Sam McClaren gravel road. Peter M. Cook is County Audr.

VALPARAISO, IND.—The Commissioners of Porter County will receive bids until noon, Aug. 8, for the construction of two gravel roads in Center Township. Stephen P. Carboy is County Audr.

BLOOMINGTON, IND.—The City Council on July 15 awarded contract for paving College Ave., from Fourth St. to Seventh St., and Kirkwood Ave., from Morton St. to Washington St., to C. M. KIRKPATRICK, of Greenfield, Ind., at $15,068 and $17,916, respectively. GEORGE T. MILLER secured contract for paving Walnut St., from Fourth to Seventh Sts., and Sixth St., from Morton to Washington Sts., at $16,480 and $12,721, respectively. Brick will be used on both contracts.

JACKSON, MICH.—Bids will be received at the office of the Board of Public Works, until 10 a. m., Aug. 1, for furnishing all materials and labor for paving Liberty St., from Michigan Ave. to Park Ave.; Milwaukee St., from the river bridge to Wesley St.; Water St., from Milwaukee St. to Bridge St. Bids will be received for pavement of brick or any other suitable material; also for the resurfacing or repaving of Wildwood Ave. with sheet asphalt or some other suitable material. J. F. Harrison is Supt. Bd.

LEWISTOWN, ILL.—See item under Sewers.

WATSEKA, ILL.—Bids are asked by the Board of Local Improvements until 2 p. m., Aug. 8, for excavating, grading and paving with macadam and Tarvia X several streets; also for the construction of combined curbs and gutter, etc. Eugene P. Morris is City Atty.

EAST ST. LOUIS, ILL.—Bids are asked until noon, July 30, by the Board of Local Improvements for grading, curbing, paving and sewering a portion of Market Ave., the work requiring 318 lin. ft. 24-in. sewer pipe laid, 2,274 lin. ft. 15-in., 2,500 lin. ft. 12-in., 4,860 lin. ft. sandstone curb, 5-in. x 20-in., set on 6-in. x 12-in. concrete 6-in. x 10-in., ten c.-i. manhole covers (light), eight stone inlets with iron covers, 75 cu. yds. brick masonry, 1,690 cu. yds. excavation placed in fill, 4,300 cu. yds. filling in excess of excavation, 8,420 sq. yds. vitrified brick paving on 6-in. concrete with 2-in. sand cushion and a pitch expansion strip along curb, cement grout filler. Frank B. Hanna is Clk.

HARVARD, ILL.—We are officially advised that the city is considering the construction of paving. J. H. Vickers is Mayor.

TAYLORVILLE, ILL.—We are officially advised that the city will receive bids about Sept. 1 for 20 or more blocks of brick paving. Estimated cost, $40,000. J. W. Dappert is City Engr.

CAMBRIDGE, ILL.—We are officially advised that the city is considering the construction of sidewalk improvements. A. L. Arthens is City Clk.

NOKOMIS, ILL.—We are officially advised that surveys and estimates for 20 blocks of vitrified brick paving, concrete curb and gutter are being made. Bids will be asked about Aug. 15. Walter R. McCaslin, Nokomis, Ill., is Engr.

MILWAUKEE, WIS.—The Department of Public Works will receive bids until Aug. 1 for building pavements in the First, Fourth, Twelfth, 18th and 22d Wards of the city. H. E. Briggs is Comr.

The Department of Public Works will receive bids until July 29 for street and alley paving in the Eleventh, 20th and 23d Wards. H. E. Briggs is Comr.

ROCKWELL CITY, IOWA.—We are officially advised that the city is considering the construction of curbing. B. F. Owens is City Engr.

KNOXVILLE, IOWA.—We are officially advised that all bids were rejected on July 19 for paving 20,000 sq. yds. with concrete in two contracts. New bids are asked until Aug. 8. Hall & Adams are Engrs., Centerville, Iowa.

CORNING, IOWA.—The City Council has awarded contract to the HAMILTON & SCHWARTZ CO., of Shenandoah, Iowa, for brick paving here, at $1.95 per sq. yd. and 70 cts. per ft. for curbing. Estimated cost, $60,000.

VILLISCA, IOWA.—Bids are asked until 8 p. m., Aug. 3, by George B. Sexton, City Clk., for paving and curbing several streets. Theo. S. De Lay is Engr.-in-Charge, Creston, Iowa.

ST. LOUIS, MO.—The Board of Public Improvements on July 22 awarded contracts for the improvement of 6½ miles of streets, at a cost of $373.000. The streets to be improved and the cost follow: Rosalie St., Carter Ave., Fair Ave., asphalt, TRINIDAD ASPHALT MANUFACTURING CO., $4,260; Cote Brilliante Ave., Kingshighway Boulevard, Union Boulevard, asphalt, same, $14,751; McLaran Ave., Broadway, Church Road, brick, JOHN B. TURNER, $6,566; Keokuk St., Missouri Ave., Broadway, brick, RUECKING CONSTRUCTION CO., $5,058; Ohio Ave., Miami St., Cherokee St., brick, WM. R. BUSH CONSTRUCTION CO., $11,831; Hereford St., Bischoff Ave., Northrup brick, WEBB-KUNZE CONSTRUCTION CO., $15,170; Elliott Ave., University St., Herbert St., brick, SKRAINKA CONSTRUCTION CO., $10,515; Glasgow Ave., Dodier St., Parnell St., brick, JOHN McMAHON, $25,077; Forest Ave., Manchester Ave., Plateau Ave., brick, SKRAINKA CONSTRUCTION CO., $19,576; Pennsylvania Ave., Miami St., Potomac St., brick, WM. R. BUSH CONSTRUCTION CO., $4,913; Louisiana Ave., Eiler St., Neosho St., brick, RUECKING CONSTRUCTION CO., $23,636; 19th St., North Market St., St. Louis Ave., brick, WILLIAM R. REDEMEYER, $13.282; Eighth St., Biddle St., Cass Ave., brick, WILLIAM R. BUSH CONSTRUCTION CO., $11,465.70; Tenth St., Biddle St., Cass Ave., brick, WILLIAM R. BUSH CONSTRUCTION CO., $11,300; Eleventh St., Biddle St., Cass Ave., brick, same, $9,464; Biddle St., Broadway, Seventh St., brick, SKRAINKA CONSTRUCTION CO., $4,870; 13th St., Franklin St., Biddle St., same, $10,411; Seventh St., Biddle St., Cass Ave., brick, WILLIAM R. BUSH CONSTRUCTION CO., $10,895; Grand, Kingshighway, Kingshighway Southwest, Bates St., telford, G. EYERMANN & BRO., $24,972; Grand Ave., Bates St., Neosho St., telford, RUECKING CONSTRUCTION CO., $30,323; Habsburger Ave., Salzburger Ave., Gravois Ave., telford, HARRY F. HEMAN, $4,526; North Market St., Kingshighway Boulevard, Union Boulevard, bitulithic, GRANITE BITUMINOUS PAVING CO., $23,293; Mississippi Ave., Geyer Ave., Lafayette Ave., bitulithic, same, $8,122; Kingshighway Southwest, Compton Ave., Grand Kingshighway, grading and planting trees and shrubbery, HARRY F. HEMAN, $9,623.

HOUSTON, TEX.—Bids will be received by John B. Ashe, County Audr., until noon, Aug. 11, for paving Scott St. road.

COLORADO, TEX.—This place has voted $30,000 of bonds to make extensive road improvements in an area nine miles square, with Colorado as the center.

SHAWNEE, OKLA.—The METROPOLITAN ENGINEERING & CONSTRUCTION CO., of Shawnee, has been awarded contract by the city for laying 52,000 yds. of asphalt pavement, at $1.99 per yd.

SPOKANE, WASH.—The Mission Ave. paving improvement contract from Division St. to the Mission Avenue bridge was awarded on July 11 to the BARBER ASPHALT PAVING CO., the lowest bidder, at $84,500. The company agrees to maintain the street for five years for $2,410 and to finish the work in 80 days. The City Engineer's estimate on the work was $95,000. Other bidders were as follows: Western Asphalt Paving Co., $83,800, maintenance $3,500; Independent Asphalt Co., $84,307, maintenance $3,214. The same company has secured contract at $62,000 for paving Howard St., from Waverly Pl. to Spafgerd Ave.

SEATTLE, WASH.—The Board of Public Works on July 12 awarded contract for paving James St. to S. NORMILE, at $72,962. The contract for grading West Garfield St. was awarded to C. GESKE, at $56,151.

CHEHALIS, WASH.—The Council has awarded contracts for street paving in this city to the WARREN CONSTRUCTION CO., of Portland. The contracts amount to $91,100, and bitulithic pavement is to be used with 6-in. concrete base. The most of the work is to be on residence or near business streets. There was one other bid, that of the Barber Asphalt Paving Co., at $94.812.

PORTLAND, ORE.—Bids for street improvements, aggregating over $500,000, were received by the City Executive Board on July 15. These bids include proposals for Hassam, stone block, bitulithic and asphalt pavements. The largest paving project on which bids were received is in the East 60th St. district, on the west slope of Mount Tabor. This is to be paved with bitulithic pavement. The bid of the Pacific Bridge Co. was $116,533, and that of the Warren Construction Co. $114,597. Bids were also received for the Tenth St. district. Asphalt paving is to be laid in this district. The Oregon Independent Paving Co. submitted a proposal to do this work for $98,383, and the bid of the Barber Asphalt Paving Co. was $89,833. The latter company was the only bidder for paving East 51st St., from Hawthorne Ave. to East Lincoln St., at $15,353.

The Oregon Hassam Paving Co. submitted a bid of $40,664 for paving Kerby St., from Ainsworth Ave. to West Piedmont. This company also bid on East Tenth and East Ninth Sts., from Halsey to Thompson Sts., at $20,067. Archie Mason bid to lay concrete paving over the First St. district in South Portland, at $1.40 a square yard. The total amount of his bid was $31,481.

Bids on Russell St., from Rose to Gantenbein Sts., to be paved with stone blocks, were received. The National Construction Co. submitted the lowest bid at $13,590.

The Warren Construction Co. submitted proposals for paving the East 27th St. district at $70.014, and Thirteenth St., from Jefferson to Hall, at $21,053.

LOS ANGELES, CAL.—The Board of Public Works has awarded contract to H. H. CURTIS for improving 51st St., at $3.125, and to the FAIRCHILD-GILMORE-WILTON CO. for improving San Julian St., at $9,128.

PASADENA, CAL.—The city has ordered the grading and paving of California St. and the construction of cement curbs and gutters thereon; cement curbs and gutters on Esther St.; grading and paving Summit Ave., and the construction of cement curbs and gutters thereon; grading and oiling Catalina Ave. and the construction of cement curbs and gutters; same work on Spruce St., Kirkwood Ave. and the construction of a reinforced-concrete storm sewer along Depot St. and Broadway, together with 20 catch basins and 16 manholes; also to construct a reinforced-concrete sewer in Broadway, together with 20 catch basins and six manholes; a sewer along Center St. and Elevado Drive, together with 18 catch basins and five manholes; a vitrified pipe sewer along Garfield Ave., together with three manholes, two flush tanks and 70 6 × 8 Y's. Plans for above in office of City Engineer. Heman Dyer is City Clk.

OAKLAND, CAL.—Bids are asked by the Park Commission until 2 p. m., Aug. 4, for furnishing the necessary labor and materials for the construction of an asphalt roadway in Lakeside Park for the Park Department in accordance with plans and specifications on file with the Board. Frank R. Thompson is Clk. City Council.

RICHMOND, CAL.—Bids will be received by I. R. Vaughn, the Clk., City Council, until 8 p. m., Aug. 15, for the following street work to be done in accordance with plans and specifications on file with the clerk: To improve Maine St., from the easterly line of First St. to the westerly line of Tenth St., to be paved with oiled macadam, curbed with concrete, guttered with concrete and iron culverts constructed.

*FORT DOUGLAS, UTAH.—Bids will be received until 10 a. m., Aug. 20, for labor and materials required in the construction of roads, catch basins, concrete sidewalks, grading and drains complete at Fort Douglas. Proposals should be addressed to Kenneth P. Williams, A. Q. M., Constructing Q. M., U. S. A., Fort Douglas.

SALT LAKE CITY, UTAH.—The Board of Public Works on July 16 awarded contract to P. J. MORAN, of Salt Lake City, for repairing asphaltum in the paved district. Estimated cost, from $10,000 to $15,000.

McKAY & REED, of Salt Lake City, were given the contract for the construction of crosswalks in every part of the city where they are required, at about $6,500.

Bids for the paving of Second West St., from Second South to Warm Springs will be opened July 29.

CALDWELL, IDAHO.—See item under Water Supply—Irrigation.

CUBA.—The American Legation at Havana reports that a bill has been introduced in the Cuban Congress to authorize the President to contract with some company, either native or foreign, for the improvement of the city of Havana by the construction of two diagonal boulevards in various parts of the city. If this measure becomes a law, the general conditions of the contract are to be prepared by the Department of Public Works, and bids are to be invited.

MANUFACTURING PLANTS.

*(*Denotes that this work is advertised in Engineering News.)*

FRAMINGHAM, MASS.—The New England Brick Co., of Hartford, Conn., which was incorporated in May, with a capital stock of $150,000, will manufacture sand-lime bricks in Farmington. The company has acquired a 140-acre sand bed between Farmington and Unionville, and will immediately erect a plant costing about $40,000 and having a capacity for the production of from 40,000 to 50,000 brick.

NIAGARA FALLS, N. Y.—The National Carbon Co. will erect a plant at Niagara Falls from plans prepared by the Osborn Engineering Co., Osborn Bldg., Cleveland. Cost, $500,000. The contract for the steel work has been awarded to T. H. BROOKS & CO., of Cleveland. The National Carbon Co. will also extend its Fremont plant. The plans have been prepared by the Osborn Engineering Co. for a 4-story building and the order for the steel has been placed.

NEW YORK, N. Y.—The Trinity Church Corporation will build an 8-story factory, 65.5 × 100.4 ft., from plans filed by C. C. Haight, Arch., 452 Fifth Ave., on the northwest corner of Canal and Sullivan Sts. The cost is placed at $20,000.

NEW YORK, N. Y.—We are officially advised that the TURNER CONSTRUCTION CO., 11 Broadway, New York, has the contract to erect an 8-story reinforced-concrete manufacturing building, 440 × 230 ft., at 39th St. and Third Ave., South Brooklyn, for the Bush Terminal Co., 100 Broad St., New York.

CALEDONIA, N. Y.—The Caledonia Marl Co., with its plant one mile east of this village, is to enlarge its buildings by the erection of a storage building, 30 × 100 ft., in which the dried agricultural lime, which it is putting out will be placed, ready for the Spring season. This addition to the storage capacity will make the total storage some 6,500 tons. The building will be erected south of the present main building and will be of concrete and frame. The present storage for wet marl taken from the pits will be converted into dry storage also.

ROCHESTER, N. Y.—The Empire State General Vehicle Co., has completed plans and will erect a 1-story factory building, 45 × 215 ft., at North Goodman and Circle Sts. It will be of pressed brick and concrete. N. R. M. Searle is Pres., 34 Clinton Ave.

Chas. M. Hirschfelder, Arch., 406 Exchange Place Bldg., has prepared plans for a brick and steel factory building, 48 × 146 ft., to be erected on Merrimac St. by the A. W. Ott Co., paper box manufacturers. The building will consist of three stories and basement.

NORWICH, N. Y.—The David Madale Hemmer Co. will erect a 2-story brick factory, 48 × 200 ft., from plans prepared by Linn Kinne, Arch., Utica City National Bank Bldg., Utica, N. Y.

BUFFALO, N. Y.—We are officially informed that the Alling & Cory Co., of Rochester, N. Y., has let a contract to the TURNER CONSTRUCTION CO., 11 Broadway, New York, for erecting an L-shaped reinforced-concrete factory, 153 × 65 ft., with a wing, 118 × 53 ft. It will have six stories and basement, and the floors are to carry 300 lbs. to the sq. ft.

BUFFALO, N. Y.—The Electrolytic Products Co., Frank A. Abbott, Secy., 707 D. S. Morgan Bldg., is having plans prepared for a factory building for the manufacture of radiators for automobiles at Elmwood and Hertel Aves.

The Kelley Electric Machine Co., Guilford W. Francis, Pres., 36 West Seneca St., is having plans prepared for a factory building, 50 × 140 ft., to be erected on Chandler St., near Bridgeman St.

ROME, N. Y.—The Federal Creosoting Co., of Chicago, is having plans prepared for a tie creosoting plant, which it will erect at West Rome, to consist of two retort buildings, power-house and an office building of brick. The general offices are in the McCormick Building, Chicago.

SYRACUSE, N. Y.—The United States Hoffman Co., 329 Temple St., has had plans prepared for a 3-story and basement factory building, 50 × 150 ft., to be erected on Temple St., for the manufacture of clothes pressing machinery.

The Dodge & Zuill Mfg. Co. has purchased of the Henry Hooker Estate the property at 505 East Water St., on which will be erected a 6-story fireproof building for manufacturing purposes. Plans and specifications are being prepared by Gordon A. Wright, Arch., Onondaga County Savings Bldg., and the work will be started as soon as the preliminary drawings are completed. The property purchased by the Dodge & Zuill Manufacturing Co. was formerly occupied by the Heffron & Tanner Co., now the Heffron Co., and it has not been used since the fire which left only the outer walls standing. The interior of the building will be of reinforced-concrete construction. The first floor will be used for heavy machinery and the second floor for office and shipping purposes. There is a frontage of 38 ft. and the lot is 60 ft. deep. For a time at least the company will rent one or two floors of the building.

BAYONNE, N. J.—The Directors of the National Sulphur Works, which were completely destroyed by fire recently, causing a loss of $100,000, have decided to rebuild the plant.

RIVERSIDE, N. J.—The SHAMOKIN LUMBER CO. has secured the contract to build the knitting mill for M. E. Tauble at Riverside, N. J. The mill will be fireproof. The plans were drawn by Jury & Kessler, of Shamokin, Pa.

PHILADELPHIA, PA.—The Tabor Mfg. Co., now at 18th and Hamilton Sts., has purchased through J. Fred Dieterich, from James R. Shoch, a tract of 5½ acres at Stockley St. and the junction of the Port Richmond branch of the Philadelphia & Reading Ry. and the Chestnut Hill branch of the Pennsylvania R. R. The consideration is not disclosed. The Tabor Co. will build on the ground a manufacturing plant to cost about $200,000.

PHILADELPHIA, PA.—JOHN N. GILL & CO., 1215 Filbert St., will erect a 6-story concrete factory, 121 × 65 ft., on the east side of 17th St., north of Glenwood Ave., for the Electric Service Supplies Co. at a cost of $58,000.

ERIE, PA.—The Hamet Hospital, D. H. Dennis, Pres., will erect a power-house and laundry building at Second and State Sts. Esenwein & Johnson are Archs., Ellicott Square Bldg., Buffalo.

BRADFORD, PA.—The Gaffney Wood Products Co., recently incorporated, S. J. Gaffney, Pres., will build a chemical plant at Walton, Pa., on the Buffalo & Susquehanna R. R., for the manufacture of wood alcohol, potash and other wood products.

CLEVELAND, OHIO.—Goakes & Dettlebach, Williamson Bldg., have purchased from E. V. Hale 100 ft. of land on the south side of Perkins Ave. N. E., east of East 40th St., and leased it for a terms of years to the Metals Welding Co., which will proceed at once with the erection of a $15,000 factory building.

UHRICHSVILLE, OHIO.—The Big Stillwater Sewer Pipe Co., which will erect a sewer pipe plant south of town, is ready to begin active operations toward building its factory. The officers of the new company are: Pres., M. O. Smith; Vice-Pres., Jacob Pearch; Mgr., T. E. Cooper; Supt., A. B. Cooper; Secy.-Treas., A. E. Hagey. The members of the Board of Directors are Dr. Blickensderfer, A. B. Cooper, T. E. Cooper, G. W. Jacobs, A. E. Hagey, M. O. Smith, O. M. Gatchell, R. P. Clark. The plant will be equipped with machinery for turning out the sewer pipe products.

LOGANSPORT, IND.—Bids will be asked by the E. E. Pitman Handle Co. for the construction of a factory building as soon as plans can be made and the insurance on the old building adjusted.

WHEATLAND, IND.—The Farmers Educational National Union has awarded a contract to FRED FREIDLINE & CO., of Chico, for the construction of a grain elevator at $19,000.

INDIANAPOLIS, IND.—The Premier Motor Mfg. Co., of this city, is to enlarge the capacity of its factory at Georgia and Shelby Sts., and operations are under way which will almost double the present floor space and proportionately increase the production. Actual work has begun, so that the additions will be completed and the buildings occupied within a very short time. The Premier Company has purchased additional ground in Georgia St., opposite the present plant, moving away three dwelling houses to make room for additional factory space, and the present ground area will be utilized to the limit in the new plans. A 2-story wing to the newest building will be constructed, and an open machine shop, with saw-tooth roof will take the place of the present erecting shop, while the building which is now occupied by the machine shop and the offices of the company will be rearranged to give more space to all departments. A motor test shop, 50 × 130 ft. in size, will form the center of the fireproof, sheet metal structures. A storage stock room 100 × 50 ft. in size, will occupy another third of the newly acquired ground space and will take from the present administration building the stock room now maintained. The remainder of the new site, 50 × 100 ft., will be occupied by the road testing department and repair shop. The present 2-story brick building, which is used by the painters, upholsterers and final assemblymen, will have an addition of 40% by the erection of a 2-story brick wing which will give it the shape of an L, and this also will be utilized in finishing and body work. The machine shop and erecting rooms, in which the heavy work is done and where it is found more economical to eliminate elevator service, the Premier Company has arranged for a 1-story building of brick and iron, 490 × 90 ft., with a saw tooth roof.

GOSHEN, IND.—The Cleveland-Akron Bag Company, having plants at Cleveland, Buffalo and Detroit, has purchased six acres of land at Goshen, Ind., for the purpose of erecting during the fall a complete plant for the manufacture of burlap, cotton and paper bags. A bleachery for finishing cotton goods for the company's own use will also be erected. The plant at Goshen will enable the company to handle its Western business much more economically and satisfactorily. The general offices will be in Chicago.

GRAND RAPIDS, MICH.—Spier, Rohns & Gherke, Chamber of Commerce Bldg., have been commissioned to prepare plans for an automobile garage, two stories, 185 × 185 ft., for the Buick Motor Co., 750 Woodward Ave. Garage to be located in Grand Rapids, Mich.

OTTAWA, ILL.—The Chicago, Ottawa & Peoria Ry. Co. will build a car repair shop, 60 × 300 ft., enclosing three tracks and an equipment of car-repair tools. The structure will be built of brick and steel, and will be similar in design to the Decatur shop buildings of the Illinois Traction System. H. E. Chubbuck, La Salle, Ill., is Gen. Mgr.

CHICAGO, ILL.—An 8-story building to cost about $100,000 is to be erected on West Washington St., at the southeast corner of South Jefferson St., by the Sharples Separator Co., 105 Clinton St. Philip M. Sharples purchased from the estate of Elise Frank the property at that corner with 90 × 74 ft. of ground, improved with brick and frame residences.

MILWAUKEE, WIS.—H. W. Buemming, Arch., Pabst Bldg., has completed plans for a 4-story addition to be built to the plant of the Henschel Mfg. Co., between Hanover and Mineral Sts. The plant will be of mill construction, 80 × 140 ft.

H. C. Hengels, Arch., 702 Grand Ave., has awarded the following contracts on the $60,000 piano factory to be erected by the Waltham Piano Co. on Island Ave., near Keefe Ave.: Mason and concrete work, HENRY DANISCHEFSKY, North Ave. and Lake Drive; carpenter work, FRANK LUENZMANN CO., 1317¼ Cold Spring Ave.; iron work, WORDEN-ALLEN CO., Port Washington Road; plumbing, AUGUST RHEINS.

MILWAUKEE, WIS.—The Phoenix Knitting Works, Milwaukee, Wis., is having plans drawn for an addition, which will be 80 × 120 ft., six stories high. The building will be constructed of reinforced concrete and brick and will cost about $80,000. A power-house will be erected also.

RACINE, WIS.—The Badger Foundry Co., recently organized here, will erect a foundry building, 60 × 60 ft., of brick with steel frame.

BELOIT, WIS.—The Electric Cleaner Co., 98 Jackson Boulevard, Chicago, Ill., is planning to erect a factory building in this city. C. W. Grout is Gen. Mgr. The company is capitalized at $100,000.

WAUPUN, WIS.—The C. A. Shaler Co. will erect a factory building, 30 × 130 ft., 90 ft. of which will be two stories high. Reinforced concrete will be used. The company manufactures electric vulcanizers.

MONTE VISTA, COLO.—Press reports state that it is proposed to erect a beet sugar factory to cost approximately $750,000, at Monte Vista, Colo., and to construct 38 miles of standard gage railroad from Monte Vista north to Saguache this fall. W. D. Hoover, of the Western Metals Co., of Denver, Colo., is interested.

JOHNSTOWN, COLO.—It is stated that a factory will be built here by the Johnstown Improvement Co., of Johnstown, Weld County, and it will then be taken over and equipped by the Colorado Condensed Milk Co. This enterprise involves the immediate expenditure of over $50,000 for the factory alone. The Johnstown Improvement Co. was organized by Johnstown capitalists for the purpose of constructing the building. Willard E. Letford, cashier of the First National Bank, of Johnstown, is Pres.; Gilbert Landell, Mgr. of the Fort Lupton factory, is Secy.; H. J. Parish, of Johnston, Vice-Pres., and William Parkin, of Johnstown, Treas. The equipment of the factory will cost $40,000. Sugar beet interests in the vicinity of Johnstown are taking stock in the new concern, and many local people are interested. The factory will have a total capacity of 100,000 lbs. of condensed milk per day, and about 30,000 lbs. daily production to start with.

PORTLAND, ORE.—The RAYMOND CONCRETE PILE CO., 90 West St., New York, has been awarded the contract for the pile foundations of a building to be erected for the Cudahy Packing Co., at Portland.

TUSTIN, CAL.—The Tustin Hills Orange Association will erect a packing house here, to be equipped with machinery and precooling plant. Mr. Knight, of Whittier, Cal., is Mgr.

EUREKA, CAL.—The Pacific Pulp & Paper Co. will erect a plant for the manufacture of pulp only in this city. Waste products from the Holmes-Eureka and Press mills will be manufactured into pulp and shipped elsewhere to be made into paper. To build and equip a paper mill of large enough capacity to use the pulp to be manufactured at the projected plant would require an outlay of about $1,500,000, according to D. J. McKay.

Gen. Mgr. After the pulp mill is completed and in operation plans will be made to finance the establishment of a paper mill to be operated in conjunction with the tributary pulp mills to be erected at Arcata and Fortuna.

LOS ANGELES, CAL.—The Griffin Car Wheel Co., of Chicago, Ill., will establish a factory here, which will be the Western distributing point for car wheels and under bodies, to be manufactured here. A foundry, machine shop and lathe shop will be erected at 54th St. and Santa Fe Ave. The plant will employ 300 men at the start.

EL CENTRO, CAL.—The Imperial Valley Oil & Cotton Co., of this city, will erect three buildings for their cotton plant in El Centro, 50 × 200 ft. each, constructed of brick. Branches will be established in several of the surrounding towns. Geo. C. Walsh is Gen. Mgr.

PATTERSON, CAL.—The plans of the Oakland Paving Co. for the construction of a paving brick plant at Patterson, a new station on the Western Pacific Ry., near Decoto, have been completed and work on the erection of the buildings will commence at once. The main structure will be 987 ft. long, extending almost to the Southern Pacific tracks as the plant is located between the two roads. The capacity of the kiln to be installed will be 1,500,000 bricks. The paving bricks are to be made from the washed sedimentary clay deposits near here.

RICHMOND, CAL.—The Western Pipe & Steel Co. has closed negotiations for the purchase of 12½ acres from John Peres, northwest of the Wall addition, as the site for a plant. Work will be commenced on the factory buildings within 60 days and $100,000 will be expended in construction and installation. Plans of the company call for the employment of 200 skilled mechanics as soon as the plant is ready for operation. Riveted pipe and similar products will be manufactured.

WHITTIER, CAL.—W. W. Newell, of this city, is having plans prepared for a 1-story candy factory to be erected on East Philadelphia St.

SAN BERNARDINO, CAL.—The Union Oil Co. will erect five buildings to house the distributing plant of the company in the San Bernardino Valley. The buildings will have concrete foundations and floors. There will be three tanks, with a capacity of 90,000 gallons, a pumping station, offices and a garage.

MISCELLANEOUS CONTRACTS.

(**Denotes that this work is advertised in Engineering News.*)

U. S. RECLAMATION SERVICE.—All news concerning canal and irrigation projects, etc., will be found under Water Supply—Irrigation.

WHARF.—Tadousac, Que.—The contract for the construction of a wharf, etc., at Tadousac Harbor, has been awarded to NAP. WARREN, of Chicoutimi, Que.

DITCH.—Minneapolis, Minn.—Bids will be received until Aug. 1 by Hugh R. Scott, County Audr., for digging and constructing Ditch No. 19. Estimated cost, $15,911.

*DREDGING, ETC.—Jacksonville, Fla.—Bids are asked by Capt. George R. Spaulding until noon, Aug. 24, for dredging and removal of rock in Biscayne Bay, Fla.

DREDGING.—Stockton, Me.—Bids will be received until Aug. 22 by Lieut.-Col. Geo. A. Zinn, Corps Engrs., U. S. A., Portland, Me., for dredging in Stockton Harbor, Me.

DRY DOCK.—Bremerton, Wash.—The Navy Department at Washington, D. C., on July 11, awarded to C. J. ERICKSON, of Seattle, the contract for constructing Puget Sound dry docks at $1,863,096.

WHARF.—Levis, Que.—The contract for the construction of a deep water wharf at Levis has been awarded to HORACE DUSSAULT, of Levis, by the Department of Public Works, Ottawa, Ont.

DITCH.—Fairmount, Minn.—Bids will be received until Aug. 2 by H. P. Edwards, County Audr., for constructing Judicial Ditch No. 9, consisting of about 37,550 ft. of from 20 to 6-in. tile. Cost, $14,194.

DITCHES.—Red Lake Falls, Minn.—Bids will be received until July 30 by A. A. Latendresse, County Audr., for digging and constructing ditches Nos. 44 and 45. Cost, $11,839 and $1,856, respectively.

SHORE PROTECTION, PIER.—Racine, Wis.—Bids will be received until Aug. 6 by the Board of Public Works, P. H. Connolly, Chn., for constructing concrete lake shore protection; also same time for constructing a concrete pier.

COAL POCKET.—Philadelphia, Pa.—JOHN R. WIGGINS & CO., 1215 Filbert St., have secured the contract for a concrete coal pocket, trestle, etc., for Owen Letter's Sons, at Trenton Ave. and Westmoreland St., to cost $19,000.

*REMOVAL OF WRECK.—Plymouth, Mass.—Bids are asked until noon, Aug. 22, by Col. Frederic V. Abbot, Corps of Engrs., U. S. A., Boston, Mass., for removing the wreck of the barge "Harbeson Hickman" in Plymouth Harbor, Mass.

*DREDGING, ETC.—Larchmont, N. Y.—Bids will be received until noon, Aug. 20, by Col. W. M. Black, Corps Engrs., U. S. A., Army Bldg., New York, N. Y., for dredging and removing ledge and broken rock in Larchmont Harbor, N. Y.

DITCH.—Moline, Ill.—The Drainage Commissioners of Hampton Township have awarded to MATTHEWS BROS. & CO., of Erie, Pa., the contract to dig Drainage Ditch No. 4, about 134,000 cu. yds., at 7.99 cts. per cu. yd. Total cost, about $15,000.

CREEK IMPROVEMENT.—Visalia, Cal.—The lowest bid received on July 20 for the improvement of Mill Creek, including certain bridge work, was submitted by R. Keatinge & Sons, 693 Mission St., San Francisco, Cal., at $66,512. Morve L. Weaver is City Engr.

DITCH.—Louisville, Ky.—Bids are asked by the Fiscal Court of Jefferson County, at Louisville, until noon, Aug. 1, for construction of a portion of the Mill Creek Ditch. S. F. Crecelins is Engr., Equitable Bldg., Louisville; H. D. Robb is Chn. of the Drainage Com.

BULKHEAD.—Long Beach, Cal.—The City Council has confirmed the resolution to construct a cement bulkhead, 7,000 ft. long, on Seaside Boulevard, from the Virginia Hotel to Seaside Park. It will be probably three months before plans and specifications are ready for figuring.

CONCRETE LINING.—Ogden, Utah.—Bids were received on July 8 by Davis & Weber Counties Canal Co., 516 First National Bank Bldg., Ogden, for lining 7½ miles of company's canal with concrete. The contract has been let to the GILLIS CONSTRUCTION CO., Salt Lake City, Utah.

PNEUMATIC TUBE SYSTEM.—Los Angeles, Cal.—The LAMSON CONSOLIDATED STORE FIXTURE CO., of San Francisco, Cal., has secured the contract for installing the pneumatic tube system, and furnishing facing table and stacker in the post-office building being erected here, at $10,160.

DITCH.—Anderson, Ind.—Bids were received on July 9 by B. Dille, Drainage Comr., for constructing seven miles of the Taylor ditch in Anderson, requiring 6-in. to 30-in. concrete tile. Cost, about $17,000. A. I. Smith is County Engr., Anderson. The S. S. Sheets Construction Co. bid $17,284.

DITCH, ETC.—Clark, S. Dak.—Bids will be received until Sept. 6 by the Board of County Comrs., at the office of C. S. Evans, County Audr., for constructing Drainage Ditch No. 6, involving about 800,000 cu. yds. of excavation and also furnishing culverts in Lake and Hague Townships.

LUMBER.—Jeffersonville, Ind.—Bids were received by Capt. L. D. Cabell, Q. M., U. S. A., Jeffersonville, on July 14, under Schedule No. 552, for furnishing 3,000 ft. ash, 10,000 ft. oak and 15,000 ft. poplar. The contract has been awarded to E. W. BARTLEY, of Racine, Wis.

LEVEE.—Kansas City, Kan.—Bids will be received by the Kaw Valley Drainage Board, W. H. Daniels, Pres., until Aug. 22, for about 62,400 cu. yds. levee work, 50,000 sq. yds. of revetment, paving and other work along the left bank of Kansas River from Mattoon Creek to Fifth St. Bridge.

REBUILDING STEAMER.—New York, N. Y.—Bids were received by the Department of Public Charities on June 30, for furnishing all the labor and materials required for rebuilding wood steamer "William H. Wickham." The contract has been let to THE JOHN W. SULLIVAN CO., foot of East Ninth St., New York, at $4,635.

*EXCAVATING.—Des Moines, Iowa.—Extensive flood protection is to be undertaken at Des Moines, Iowa, this fall. The work consists of excavating new channels in the Des Moines and Raccoon Rivers, estimated at about 650,000 cu. yds.; also levee construction, etc. For plans and specifications address Neal Jones, City Clerk, Des Moines, Iowa.

FORGINGS.—Washington, D. C.—Bids are asked until Aug. 13, by William Crozier, Ch. of Ordnance, U. S. A., Washington, D. C., for furnishing 16 sets of steel forgings and four extra breech block forgings for 4.7-in. gun, Model 1906, and twelve sets of steel forgings and three extra breech block forgings for 3-in. field gun, Model 1905.

BULKHEAD.—Philadelphia, Pa.—Bids were received by the Department of Wharves, Docks and Ferries on July 18 for the construction of a bulkhead between Vine St. and Collowhill St. The contract has been awarded to the FILBERT PAVING & CONSTRUCTION CO., Land Title Bldg., Philadelphia, at $87,338. Joseph F. Haskarl is Acting Dir.

PIER.—Oakland, Cal.—Bids were received as follows on July 20, by the Board of Public Works for the construction of the Livingston St. pier for the Board of Public Works of the City of Oakland, Alameda County, Cal., Walter B. Fawcett, Secy.: H. Gould, Oakland, $127,219; Mercer-Frazer Co., 1525 Mission St., San Francisco, $135,000; Healy-Tibbitts Construction Co., 268 Market St., San Francisco, $119,982; Thompson Bridge Co., $125,000 and $112,900; Pacific Construction Co., 251 Kearny St., San Francisco, Cal.; Metropolis Construction Co., $129,775; Burrell Bridge & Construction Co., $131,300; Cotton Bros. & Co., 343 Fifth St., $119,790.

(Continued on page 47.)

CONTRACT PRICES.

(**Denotes that this work is advertised in Engineering News.*)

SEWERS.—Seattle, Wash.—Bids were received by the Board of Public Works July 1 for the construction of the Lake Washington District of the North Trunk sewer from: (A) F. McLellan, Burke Bldg., Seattle; (B) Grant, Smith & Co., Second Ave. and Ball St., Seattle (C) C. J. ERICKSON, Seattle (awarded contract). R. H. Thomson is City Engr. The itemized bids were as follows:

TRUNK SEWER SEATTLE, WASHINGTON.

	A	B	C
Abstract of title—fixed estimate	$15,000.00	$15,000.00	$15,000.00
710 lin. ft. 114-in. concrete sewer	40.00	41.50	36.00
2,700 lin. ft. 90-in. concrete sewer	31.40	33.00	25.00
1,040 lin. ft. 72-in. concrete sewer	25.10	23.00	22.00
500 lin. ft. 72-in. concrete sewer	32.30	33.00	22.00
2,320 lin. ft. 66-in. concrete sewer	22.50	22.50	21.00
6,000 lin. ft. 60-in. concrete sewer	18.00	19.00	20.00
4,480 lin. ft. 54-in. concrete sewer	16.20	18.00	19.00
7,270 lin. ft. 48-in. concrete sewer	15.30	17.50	18.00
1,360 lin. ft. 32-in. × 48-in. brick sewer	26.50	22.50	16.00
2,670 lin. ft. 24-in. × 36-in. brick sewer	18.00	18.00	14.00
1,410 lin. ft. 36-in. brick sewer	18.50	18.30	15.00
280 lin. ft. 30-in. brick sewer	19.30	17.30	13.00
460 lin. ft. 24-in. pipe sewer	8.00	7.20	6.00
2,240 lin. ft. 21-in. pipe sewer	7.00	6.90	5.00
960 lin. ft. 18-in. pipe sewer	6.10	5.70	4.00
70 lin. ft. 15-in. pipe sewer	3.50	4.00	2.50
1,230 lin. ft. 12-in. pipe sewer	3.00	4.00	2.00
430 lin. ft. 10-in. pipe sewer	2.90	3.90	1.50
800 lin. ft. 8-in. pipe sewer	2.50	3.80	1.25
123 manholes	130.00	90.00	75.00
1,430 lin. ft. extra depth manholes	9.00	7.00	5.00
Siphon (lump sum)	34,537.00	42,500.00	25,000.00
Sand catcher, Montlake Boulevard (lump sum)	5,400.00	5,400.00	3,000.00
Sand catcher, Newport Ave. (lump sum)	900.00	1,100.00	1,300.00
Stormwater overflow (lump sum)	7,500.00	8,000.00	4,000.00
Junction chamber, Montlake Blvd. (lump sum)	2,775.00	3,100.00	1,500.00
Junction chamber, East Lynn St. (lump sum)	1,374.00	1,600.00	1,000.00
Washington Park Viaduct (lump sum)	19,500.00	22,500.00	15,000.00
60 piles	8.00	10.00	8.00
70 cu. yds. concrete foundation	14.00	18.00	9.00
Canal crossing, Plan "A" (lump sum)	6,000.00	9,500.00	2,000.00
Canal crossing, Plan "B" (lump sum)	7,400.00	8,800.00	2,000.00
54 lin. ft. 15-in. culvert	1.50	1.50	1.00
650 ft. 6-in. side connections	.60	.80	1.00
500 cu. yds. extra concrete	11.30	10.00	9.00
10,000 lbs. extra steel	.07	.06	.06
Total, Canal Crossing, Plan "A"	$779,671	$816,335	$709,939
Total, Canal Crossing, Plan "B"	$781,071	$816,635	$709,939

BARGE CANAL.—The item prices of the bid received by F. C. Stevens, Supt. Public Works, on July 19, 1910, for Barge Canal Contract No. 62, for the improvement of the canal in Orleans County, a distance of over 14 miles, were: (A) Engineer's estimate; (B) I. M. Ludington & Sons, Inc., Rochester, N. Y.:

	(A)	(B)
14.15 miles coffer-dams, pumping, bailing & draining, mi.	$2,000.00	$2,400.00
Clearing, lump sum	6,000.00	7,200.00
1,625,600 cu. yds. excavation	.55	.64
160 M. ft. sheeting and bracing	45.00	47.00
2,000 lin. ft. round timber bracing	.20	.20
11,960 sq. ft. channeling	.75	.90
718,200 cu. yds. forming embankment	.18	.12½
37,900 cu. yds. lining	1.50	1.50
30,000 cu. yds. puddle	2.00	2.00
64 M. ft. sawed lumber (yellow pine or Douglas fir)	50.00	50.00
8,000 lin. ft. foundation piles	.35	.42
25 M. ft. wooden sheet piling	50.00	50.00
45,120 cu. yds. second-class concrete	7.50	7.50
4,444 cu. yds. third-class concrete	6.00	6.75
4,160 cu. yds. reinforced concrete	12.00	12.00
29 cu. yds. first-class masonry coping	30.00	30.00
5,125 cu. yds. rubble masonry	4.00	4.00
1,476 cu. yds. dry retaining wall, including coping	2.50	3.00
101,100 cu. yds. wash wall	2.00	2.00
8,890 sq. yds. second-class stone paving	1.50	1.50
14,300 sq. yds. third-class stone paving	1.25	1.45
200 sq. yds. cobblestone paving	1.25	1.25
550 cu. yds. second-class riprap	2.75	2.75
21 cu. yds. third-class riprap	2.50	2.50
1,704,000 lbs. cast-iron culvert pipe and specials	.02¼	.02½
450 lin. ft. 8-in. vitrified pipe, laid	.20	.20
450 lin. ft. trenching & backfilling for 8-in. vitrified pipe.	1.50	1.50
2,403,300 lbs. structural steel	.05	.05
443,000 lbs. metal reinforcing	.03½	.03½
19,100 lbs. iron castings, plain	.03½	.03½
270 lbs, expanded metal	.05	.05
560 sq. ft. Portland cement sidewalks	.25	.25
30 sq. yds. relaying sidewalks	.50	.50
120 sq. yds. brick pavement	3.00	3.00
3,224 sq. yds. wooden pavement, 2¾-in	2.75	2.75
1,302 sq. yds. wooden pavement, 3¾-in	3.00	3.00
13,005 lin. ft. wooden fence	.20	.20
85 lin. ft. wrought iron pipe railing	1.00	1.00
1,580 lin. ft. lattice railing	1.75	1.75
5,400 lin. ft. repointing old masonry	.05	.05
840 lin. ft. drilling bolt holes in old masonry	1.00	1.00
Waste gates, 24 × 24-in., complete in place	225.00	225.00
Waste gates, 36 × 36-in., complete in place	325.00	325.00
465,000 lbs. metal in guard gates	.05½	.05½
100,000 lbs. machinery for lift bridge	.12	.12
3 electrical equipment	2,000.00	2,000.00
3 operator's cabins	400.00	400.00
2 pumps	450.00	450.00
172,900 sq. ft. tarfelt water proofing	.05	.05
Removing old bridge superstructures, lump sum	600.00	600.00
Maintaining navigation, lump sum	14,000.00	16,800.00
Maintaining highway traffic, lump sum	7,000.00	8,400.00
68 buildings to be removed, each	50.00	50.00
Total	$2,151,470	$2,347,836

SEWERS.—Sabetha, Kan.—Bids were received July 12 from (A) T. C. Brooks & Son., Jackson, Mich.; (B) H. G. Cass, Tonkawa, Okla.; (C) P. A. JOHNSON & CO., 437 No. Tenth St., Kansas City, Kan. (awarded contract); (D) W. F. Plummer & Co., Springfield, Mo.; (E) J. W. Smith & Son, Oklahoma City, Okla.; (F) E. D. Deed, Clay Center, Kan., (G) Katz-Craig Construction Co., Omaha, Neb.; (H) Hamilton Bros., Newton, Kan.; (I) New Slate Paving Co., Tulsa, Okla.; (J) J. W. Kelso, Iola, Kan.; (K) R. J. & W. M. Boyd Co., Kansas City, Kan. The itemized bids were as follows:

	A	B	C	D	E	F	G	H	I	J	K
21,350 lin. ft. 8-in. vitrified sewer pipe	$0.21	$0.19	$0.17	$0.18½	$0.18	$0.20	$0.18	$0.19	$0.20	$0.21	$0.19
7,750 lin. ft. 10-in. vitrified sewer pipe	.26	.25	.21	.25½	.26	.28	.25	.26	.26	.27	.26
3,455 lin. ft. 12-in. vitrified sewer pipe	.28	.32	.25	.36	.32	.35	.33	.33	.32	.31	.34
8,125 lin. ft. excavation, 0- 6 ft.	.16	.19	.19	.19	.12	.20	.17	.19	.13	.16	.24
13,855 lin. ft. excavation, 6- 8 ft.	.21	.24	.21	.29	.22	.25	.24	.23	.20	.23	.25
7,150 lin. ft. excavation, 8-10 ft.	.34	.34	.27	.40	.40	.30	.32	.35	.28	.31	.30
2,263 lin. ft. excavation, 10-12 ft.	.55	.41	.35	.59	.50	.40	.44	.55	.36	.42	.50
822 lin. ft. excavation, 12-16 ft.	.90	.75	.69	.80	.90	.75	.75	.90	.57	.55	.75
585 lin. ft. excavation, 16-20 ft.	1.50	1.00	.75	1.30	1.20	1.10	1.30	1.50	.84	1.00	.85
751 6-in. on 8-in. Y-connection	.50	.60	.50	.43	.35	.50	.50	.60	.45	.50	.50
12 6-in. on 10-in. Y-connection	.70	.65	.60	.56	.60	.60	.65	.80	.55	.60	.55
93 manholes	38.00	37.00	29.00	36.00	35.00	40.00	30.00	36.00	32.00	38.00	32.00
21 flushtanks	70.00	58.00	67.00	65.00	60.00	80.00	65.00	72.00	64.00	70.00	55.00
2 lamp holes	9.00	5.00	7.00	5.00	10.00	10.00	10.00	5.00	8.00	10.00	10.00
9 cu. yds. Portland cement concrete	9.00	10.00	9.00	10.00	10.00	12.00	10.00	12.00	9.00	8.00	12.00
Rock excavation, lump sum	3.50	2.00	...	3.50	3.75	3.50	5.00	3.00	2.40	3.00	4.00
Lumber, lump sum	35.00	30.00	...	30.00	40.00	30.00	35.00	28.00	30.00	30.00	40.00
60 lin. ft. 8-in. c.-i. pipe	1.00	1.00	1.50	1.50	1.30	1.00	1.50	1.00	1.10	1.30	2.00
60 lin. ft. 10-in. c.-i. pipe	1.50	1.50	2.25	2.00	1.75	1.25	2.00	1.50	1.40	1.60	2.50
125 lin. ft. 12-in. c.-i. pipe	2.00	2.00	2.75	2.50	2.30	2.00	2.25	2.00	2.00	2.00	2.50
Totals	$22,855	$22,146	$19,206	$24,010	$21,786	$23,344	$21,427	$23,145	$20,156	$22,240	$22,274

MISCELLANEOUS CONTRACTS.

(Continued from page 46.)

PIER.—Ocean Park, Cal.—CHARLES W. VARBALEY, Pacific Electric Bldg., Los Angeles, Cal., has secured the contract, at $175,000, for constructing pier work at Ocean Park for the Horse Shoe Pier Co. The pier will be 875 ft. long, constructed of concrete. Eager & Eager, Archs., Laughlin Bldg., Los Angeles, are preparing plans for the amusement buildings.

CULVERT.—Kansas City, Kan.—Bids were received on June 27 by the Board of Commissioners of Wyandotte County, at Kansas City, for constructing a steel reinforced-concrete culvert on the county line between Leavenworth and Wyandotte counties. Frank M. Holcomb is County Clk., Kansas City. The contract has been let to T. M. TORSON, of Kansas City, Kan.

GUN TURRETS.—Washington, D. C.—Bids are asked by William Crozier, Ch. of Ordnance, U. S. A., Washington, until Sept. 20, for furnishing two 14-in. gun turrets, model 1909.

Bids are asked until Sept. 8 by William Crozier, Ch. of Ordnance, Washington, D. C., for furnishing armor for two 14-in. gun turrets, Model 1909, including barbettes and gun shields.

DREDGING.—Trenton, N. J.—On July 19 bids were received by the Commission of Inland Waterways, Edward H. Russell, Secy., State House, Trenton, for dredging between Hereford Inlet and Townsend's Inlet. The bids follow: Rickards Dredging Co., Philadelphia, Pa., 15.75 cts. per cu. yd. at the rate of 25,000 cu. yds. per month; Hill Dredging Co., Atlantic City, N. J., 15.45 cts., at 30,000 cu. yds. per month.

DITCH.—Harlan, Iowa.—Bids will be received until Aug. 10 by the Board of County Surveyors, at Harlan, for constructing a drainage ditch and laterals along the course of the West Fork of the Nishna Botna River in Union, Greeley and Douglas Townships. The main ditch will be about 5½ miles and laterals about two miles in length. The work has been divided into eight sections, requiring in all 378,407 cu. yds. of excavation. Albert Hansen is County Audr; R. W. Crum, is Engr., Ames, Iowa.

•DITCHES.—Helena, Ark.—Bids were received on July 15 by the Board of Directors of the Yellow Banks Drainage District for the construction of two drainage ditches, about 700,000 cu. yds. excavation, in Phillips County, Ark. E. M. Allen, Secy. The contract has been let to O. O. McDONALD & CO., Collinston, La., as follows: Yellow Banks ditch, 250,000 cu. yds., 9.99 cts.; same, 8,000 cu. yds., 20 cts.; Cypress ditch, 450,000 sq. yds., 8.75 cts.; total, $64,930.

STEEL STEAMER.—Ottawa, Ont.—Bids were received by A. L. Jarvis, Asst. Deputy Minister, and Secy. of Agriculture, Ottawa, on May 31, for the construction of a steel steamer for the (fresh water) Quarantine Service at Grosse Isle (Quebec), of the following leading dimensions, namely: Length, extreme, 113 ft. 3 ins.; beam, 23 ft.; depth, 12 ft. 6 ins. To be delivered at Quebec, in the Province of Quebec. The contract has been let to the KINGSTON SHIPBUILDING CO., of Kingston, Ont., at about $60,000.

FENCING, GRADING, FILLING.—New York, N. Y.—Bids are asked by Alfred E. Steers, Pres. Boro. of Brooklyn, until 11 a. m., Aug. 3, for fencing vacant lots on the east side of Amboy St., between Sutter and Pitkin Aves., and on various other streets in the Boro. of Brooklyn; for grading lots on the north side of 54th St., between Eighth and Ninth Aves., known as Lots Nos. 64, 66 and 68, Block 5665, Section 17; for filling Webster Pond, located in the block bounded by Eighth Ave., 46th St., Ninth Ave. and 47th St., on Lots Nos. 1 and 5, Block 760, Section 3.

TELEPHONE POLES, ETC.—The following bids were received on July 20 by the Board of Water Supply for Contract 83, furnishing and erecting telephone poles and appurtenances at various localities along the line of the Catskill Aqueduct in Ulster, Orange and Westchester Counties: Carpenter & Lindsy, Paterson, N. J., $10,402; Reliance Engineering Co., $17,542; Frederick Pierce Co., $11,230; Frank E. Gore, $23,075; Lord Electric Co., $14,574; MacDonald & Gibson, $20,075; Wormser-Goodman & Co., $13,612; Geo. M. Painter, $15,406; East Coast Equipment & Construction Co., $14,-165.

DITCH.—Jackson, Minn.—Bids were received as follows on July 20 by P. D. McKellar, County Audr., for constructing ditch No. 8, requiring about (a) 204,425 yds. excavation and for (b) 147,440 ft. of tile. Estimated cost, $16,354 and $37,373, respectively: Mutti Bros., Rolfe, Iowa, (a) .0888 cts. per cu. yd.; Ewart & Depoy, Swea City, Iowa, (a) .0775; G. A. McWilliams, Chicago, Ill., (a) 0.773 cts.; Forestal & Fegan, St. Paul, Minn., (a) .0686 cts.; Indiana Drainage Co., (a) .0774 cts.; Standard Drainage Co., Windom, Minn., (a) .0723 cts.; G. E. GILBERTSON, St. James, (a) .06875 (awarded contract); SAS CHRISTENSEN, Jackson Minn., (b) $37,150 (awarded contract); Tuscola Supply & Construction Co., Webster City, Iowa, (b) $37,350.

WATER FRONT IMPROVEMENT.—Santa Monica, Cal.—Two projects for the development of the water front here have received the indorsement of the Chamber of Commerce. A bond election will be called soon to provide funds for the fulfillment of the project selected. The first plan is for the construction of an ocean promenade 1,000 ft. from the shore, the walk to be 50 ft. wide, resting on concrete piles with the floor 10 ft. above high tide. The length of the pier to be 3,300 ft. running from the Marine St. pier to the Windward pier. Estimated cost, $160,000. The second plan comprises the erection of a pier 50 ft. wide, running parallel to the shore and connecting the ends of the Fraser piers. The structure to rest on concrete piles placed 28 ft. apart, and to have a cement surface.

BARGE CANAL.—Albany, N. Y.—Bids are asked by F. C. Stevens, Supt. Public Works, until noon, Aug. 23, for three additional Barge Canal contracts as follows: Contract No. 27-A, Champlain Canal, for completing the construction of the canal, together with all incidental work between Station 1046+16, the south end of Contract No. 25, at Dunhams Basin road, and the Hudson river at Fort Edward; the engineer's estimate of the cost of the work is $380,855. Contract No. 67, for the construction of the canal prism with two locks and all other structures at Lockport, the two proposed locks being intended to take the place of the present five combined locks at that place; engineer's estimate, $1,290,880. Contract No. 79, for the construction of a highway bridge over the Oswego Canal at Bridge St., Oswego; estimated cost, $39,735. Frank M. Williams is State Engr.

U. S. POSSESSIONS.

STEEL BARS.—Panama.—Bids were received as follows by the Isthmian Canal Commission, Washington, on July 18, for furnishing 1,334,000 lbs. of steel bars: Buffalo Steel Co., Washington, $20,381, $21,048; Concrete Steel Co., 29 Broadway, New York, $21,744; Corrugated Bar Co., St. Louis, $20,-580; Crucible Steel Co. of America, Pittsburg, $26,680; Belmont Iron Works, Philadelphia, $24,946; General Fire Proofing Co., Youngstown, Ohio, $22,704; Manning, Maxwell & Moore, New York, $23,879; J. F. Pennell, 45 Broadway, New York, $23,640; Trussed Concrete Steel Co., Detroit, Mich., $22,703; J. B. Kendall, Washington, $20,-944.

EXAMINATIONS.

AID.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Aug. 10-11, to secure eligibles from which to make certification to fill vacancies as they may occur in the positions of Aid and Deck Officer in the Coast and Geodetic Survey. Applicants must have reached their 18th birthday and not their 25th birthday on the date of the examination. Aids are appointed at a salary of $720 a year. The next steps in the line of promotion are to the salaries of $900 and $1,100 as Aid, and thence to Assistant at $1,200, and then upward by steps of $200 each. The law now provides for 10 aids at $720 a year, 13 aids at $900, 6 aids at $1,100, 34 assistants at $1,200 to $1,800, and 30 assistants at $2,000 to $4,000.

DRAFTSMAN.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on August 24-25, to secure eligibles from which to make certification to fill a vacancy in the position of Marine-Engine Draftsman, $1,800 a year, Office of the Chief of Engineers, War Department, and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interest of the service to fill the vacancy by reinstatement, transfer, or promotion. Applicants must have had at least ten years' experience. Graduation in mechanical engineering will be considered equivalent to four years of this required experience. Experience in dipper and hydraulic dredge design is desirable. Applicants who have not had sufficient training and experience to entitle them to a rating of at least 70 in that subject will not be admitted to the examination. Age limit, 18 years. Application form 1312.

INDUSTRIAL NOTES.

MR. C. H. TODD, WASHINGTON, PA., was elected President of the Petroleum Iron Works, Sharon, Pa., at the recent annual meeting. Mr. Todd was one of the founders of the company.

THE STATE OF NEW YORK only sold, to investors, $8,738,000 of the $11,000,000 fifty-year 4% gold bonds offered last week. The remainder were purchased by the Comptroller for the sinking fund. The bonds were sold at an average of 100.704%.

VANADIUM CAST IRON was used in the cylinders of a number of locomotives built last year for the New York Central & Hudson River Railroad. While a sufficient time has not elapsed for the material to be thoroughly tested by wear, it has been so satisfactory that other companies have included it in their specifications. An inquiry now in the market for locomotives calls for vanadium cast iron in the cylinders and likewise some of the forgings, but whether they will be included in the final orders is as yet problematical.

LIST OF CONTRACTS PENDING.

Light, Heat and Power Plants.

		Noted in issue of
7-30	Condensers, etc., New York	7-14
7-30	Wiring, New Haven, Conn	7-28
8- 2	Elec. light plant, Wilson, Kan.	7-21
8- 3	Elec. wiring, New York	7-28
8- 5	Transformers, Washington, D. C.	7-28
8- 8	Power-house, Pierre, S. Dak	7-28
8- 8	Heating system, Wash., D. C.	7-28
8- 9	Electric feeder cables, Industry, N. Y	7-28
8-10	Electric conduits, Decorah, Iowa.	7-21
8-19	Lighting fixtures, Washington, D. C	7-28
9- 1	Cable, Winnipeg, Man	7-28
9-15	Elec. apparatus, Washington, D. C	7-28

Bridges.

7-29	Bridge, Lima, Ohio	7-28
7-30	Bridge, Springfield, Ill	7-28
7-30	Bridges, etc., Lincoln, Neb	7-21
8- 1	Bridge repair, Peninsula, Ohio	7-21
8- 1	Bridge, Bowling Green, Ohio	7-21
8- 1	Bridges, Laurinburg, N. C	7-21
8- 1	Removing piers, Beaver, Pa	7-21
8- 1•	Viaduct, Barberton, Ohio	7- 7
8- 1	Viaduct, Dallas, Tex	7- 7
8- 1	Concrete arch, Bluffton, Ind	7-14
8- 1	Superstructure, Warren, Ohio	7-14
8- 1	Bridge, South Bend, Ind	7-28
8- 1	Bridge, Santa Barbara, Cal	7-28
8- 2	Bridges, Lowman, N. Y	7-28
8- 2	Bridges, Crawfordsville, Ind	7-28
8- 2	Culvert, Monterey, Cal	7-28
8- 2	Bridges, Danville, Ind	7-28
8- 2	Bridge, Paoli, Ind	7-28
8- 2	Bridges, Brownstown, Ind	7-28
8- 2	Bridge, Brazil, Ind	7-14
8- 2	Bridge, Sylvania, Ohio	7-14
8- 2•	Bridge, Oswego, N. Y	7-14
8- 2	Bridge, Lima, Ohio	7-21
8- 3	Bridge, Rochester, N. Y	7-28
8- 3	Bridge, Baltimore, Md	7-28
8- 3	Bridges, Kansas City, Mo	7-28
8- 4	Bridge work, New York	7-28
8- 4	Bridges, Laporte, Ind	7-28
8- 4	Bridge, Brazil, Ind	7-28
8- 8	Bridge, Rockville, Ind	7-28
8- 8	Bridges, Okemah, Okla	7-21
8- 9	Bridges, Kansas City, Mo	7-28
8-10	Superstructure, Saybrook, Conn	7-28
8-10•	Bridge, Des Moines, Iowa	7-28
8-11	Bridge, Kansas City, Mo	7-28
8-12	Bridges, Loch Haven, Pa	7-28
8-15	Bridge work, Newark, Ohio	7-28
8-16	Bridges, Anderson, Ind	7-28
8-16•	Superstructure, Wilmington, N.C.	7-21
8-17•	Bridge, Baltimore, Md	7-28
8-22	Superstructure, Fort Dodge, Iowa	7-14
8-23	Bridge, Oswego, N. Y	7 28
9- 1	Bridge superstructure, Quebec	6-30
9- 5	Bridge repair, Gaffney, S. C	7- 7
9- 6•	Viaduct, Toronto, Ont	7-28

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8- 1	School, Columbus, Ohio	7-21
8- 1	Schools, Philadelphia Pa	7-28
8- 1	Hospital, Fergus Falls, Minn	7-28
8- 1	Armory, Marysville, Ohio	7-28
8- 3	Schools, Allentown, Pa	7-28
8- 3	School, Brazil, Ind	7-21
8- 3•	Post-office, Litchfield, Ill	6-30
8- 3	Bank, Columbus, Ohio	7-14
8- 4	Post-office, Chelsea, Mass	7- 7
8- 8	Post-office, Amsterdam, N. Y	7- 7
8- 8	Fire station, New York	7-28
8- 9•	Post-office, Woburn, Mass	7- 7
8- 9	Hospital, Napa, Cal	7-28
8-10	Court-house, etc., Rugby, N. Dak.	7-28
8-10•	Post-office, Decorah, Ia	7- 7
8-11	School, Portsmouth, Ohio	7-21
8-15	School, Urbana, Ind	7-21
8-17	Houses, Wheeling, W. Va	7-21
8-18•	Post-office, Pontiac, Mich	7-21
8-18	Buildings, Portland, Me	7-28
8-19	Post-office, Palestine, Tex	7-14
8-22	Post-office, Carbondale, Pa	7-21
8-23	Buildings, Wheeling, W. Va	7-28
8-25	Buildings, etc., Hawaii	6- 9
8-25•	Post-office, Marlboro, Mass	7-21
8-26	Heating, etc., St. Louis, Mo	7-28
8-29	Post-office, Bradford, Pa	7-28
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9- 6	Infirmary, Hartford, Conn	7-28
9-10	Plans, Albany, N. Y	6- 9
11- 1	Plans, Toronto, Ont	6- 9

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7-29	Reservoirs, Fort Moultrie, S. C.	7-14
7-29	Pumping engine, Minneapolis, Minn.	7-21
7-29	Pump, Atlanta, Ga.	7-28
7-29	Pumps, London, Ont.	7-28
7-30	Cleaning reservoir, Louisville, Ky.	7-28
7-30	Intake pipe, Winnetka, Ill	7-28
7-30	Tunnel, Sioux City, Iowa	7-28
7-30	Water mains, Fort Leavenworth, Kan.	7-28
7-30	Reservoir, Casselton, N. Dak	7-28
7-30	Pumping station, Fort Missoula, Mont	7-14
8- 1	Laying pipe, Cheyenne, Wyo	7-14
8- 1	Water-main, Lynchburg, Va	7-21
8- 1	Water pipe, Chelsea, Mass	7-28
8- 1	Water pipe, Saugus, Mass	7-28
8- 1	Water mains, Dundee, Ill	7-28
8- 1	Water-works, Tabor, Iowa	7-28
8- 1	Water mains, Redfield, S. Dak	7-28
8- 1	Well, San Antonio, Tex	7-28
8- 2	Well, Cherokee, Iowa	7-28
8- 3	Fire hydrants, etc., New York	7-28
8- 4•	Water-works station, etc., Gadsden, Ala	7-14
8- 4	Smokestack, Fort Sam Houston, Tex	7-14
8- 5•	Water-works, Orleans, Neb	7-21
8- 6	Reservoir, etc., Fort Barry, Cal	7-28
8- 8	Water-works, Philip, S. Dak	7-28
8- 9	Water-main, Cleveland Heights, Ohio	7-21
8- 9	Steel tank, etc., Holtsville, Cal	7-28
8-10	Well, Edgemont, S. Dak	7-28
8-10•	Water-works, Cherry Creek, N. Y.	7-28
8-15	Water system, Bridgeport, Okla.	7-21
8-25	Water pipe, etc., Keeseville, N.Y.	7-21

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7-29	Sewers, Pittsburg, Pa	7-28
7-29	Sewer, Marion, Ohio	7-28
7-30	Sewer pipe, East St. Louis, Ill	7-28
8- 1	Sewers, New Brunswick, N. J	7-28
8- 1	Sewers, Redfield, S. Dak	7-28
8- 1	Sewer system, Hooperston, Ill	7-21
8- 1	Sewers, etc., Danville, Ill	7-21
8- 1	Sewer laterals, Galion, Ohio	7-21
8- 1•	Sewer, Bronxville, N. Y	7-21
8- 2	Sewer system, Beaumont, Tex	7-21
8- 2	Sewer system, Winnemucca, Nev	7-14
8- 2	Sewers, Horton, Kan	7-28
8- 3	Sewer, Brooklyn, N. Y	7-28
8- 3	Sewer, Glen Lyon, Pa	7-28
8- 3	Sewer pipe, Leavenworth, Kan	7-21
8- 3	Sewers, Hawarden, Iowa	7-21
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8- 3•	Disposal works, Ventnor City, N. J.	7-21
8- 4•	Sewer, Woonsocket, R. I	7-21
8- 5	Sewer, Louisville, Ky	7-28
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8-10•	Sewers, Madison, N. J	7-21
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8-12	Sewers, Brooklyn, N. Y	7-28
8-22•	Sewer system, etc., Fort Crockett, Tex	7-21

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7-29	Grading, etc., McArthur, Ohio	7-28
7-29	Paving, Milwaukee Wis	7-28
7-30	Paving, etc., East St. Louis, Ill	7-28
7-30	Sidewalks, etc., Fort Missoula, Mont	7-14
7-30	Grading, Waynesboro, Pa	7-21
7-30	Roads, etc., Fort Leavenworth, Kan.	7-21
8- 1	Gravel road, Huntington, Ind	7-21
8- 1	Gravel road, Danville, Ind	7-21
8- 1	Gravel road, Jeffersonville, Ind.	7-21
8- 1	Pavement, Hampton, Iowa	7-21
8- 1	Road, Vernon, Ind	7-14
8- 1	Paving, Decatur, Ill	7-14
8- 1•	Grading, etc., Bronxville, N. Y	7-21
8- 1	Grading, Moss Point, Miss	7-28
8- 1	Paving, Jackson, Mich	7-28
8- 1	Pavements, Milwaukee, Wis	7-28
8- 2	Grading, etc., Seacaucus, N. J	7-28
8- 2	Road, Vincennes, Ind	7-14
8- 2	Road, Marion, Ind	7-14
8- 2	Roads, Martinsville, Ind	7-14
8- 2	Gravel road, Rockville, Ind	7-21
8- 2	Macadam road, Crawfordsville, Ind.	7-21
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8- 2	Macadam road, Bloomfield, Ind	7-21
8- 2	Sidewalks, Leland, Miss	7-21
8- 2•	Sidewalks, Gulfport, Miss	7-21
8- 3	Road impvt., Pittsburg, Pa	7-21
8- 3	Regulating, Brooklyn, N. Y	7-28
8- 3	Paving, Reading, Pa	7-28
8- 3	Paving, Columbus, Ohio	7-28
8- 3	Paving, etc., Villisca, Iowa	7-28
8- 4	Curbing, etc., Emsworth, Pa	7-28
8- 4	Grading, etc., Newark, Ohio	7-28
8- 4	Roadway, Oakland, Cal	7-28
8- 5	Road, Fort Morgan, Ala	7-28
8- 5	•Grading, etc., Canton, Ohio	7-28
8- 5	Paving, etc., Canton, Ohio	7-21
8- 5	Road const., Mount Gilead, Ohio.	7-21
8- 5	Street impvts., East Chicago, Ind.	7-14
8- 6	Roads, Frankfort, Ind	7-14
8- 6•	Paving, Antigo, Wis	7-14
8- 6	Roads, Tipton, Ind	7-21
8- 6	Grading, etc., Tarentum, Pa	7-28
8- 6	Street impvt., Richwood, Ohio	7-28
8- 6	Road, Washington, Ind	7-28
8- 8	Roads, Valparaiso, Ind	7-28
8- 8	Paving, etc., Watseka, Ill	7-28
8- 8	Paving, Knoxville Iowa	7-28
8- 8	Paving, New York	7-28
8- 9	Grading, etc., Decatur, Ala	7-28
8- 9•	Paving, Greenwich, Conn	7-28
8-10	Road, Harrisburg, Pa	7-28
8-10•	Sidewalks, Pensacola, Fla	7-21
8-10•	Macadam, Densiou, Tex	7- 7
8-10•	Road, Merchantville, N. J	7-21
8-10	Paving, New York	7-28
8-11	Grading, etc., Fort Riley, Kan	7-21
8-11	Paving, Houston, Tex	7-28
8-12	Macadamizing, Columbus, Ohio	7-21
8-13•	Highway impvt., Mount Pleasant, N. Y	7-28
8-15	Road, Fort McKinley, Me	7-28
8-15	Street work, Richmond Cal	7-28
8-23•	Sidewalks, Paducah, Ky	7-28
8-25•	Shell road, Fort Du Pont, Del	7-28
8-26•	Roads, etc., Fort Douglas, Utah	7-28

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7-30	Ditch, Frankfort, Ind	7-21
7-30	Ditches, Red Lake Falls, Minn	7-28
8- 1	Ditch, Louisville, Ky	7-28
8- 1	Ditch, Sioux City, Iowa	7-21
8- 1	Levee, Memphis, Tenn	7-21
8- 1	Levee, New Orleans, La	7-14
8- 2•	Levee, Kansas City, Kan	7-21
8- 2	Ditch, Fairmount, Minn	7-28
8- 3	Fencing, grading, filling, New York	7-28
8- 4	Smokestack, Ft. Sam Houston, Tex	7-14
8- 5	Ditch, Greenfield, Ind	7-14
8- 5	Supplies, Panama	7-14
8- 6	Shore protection, pier, Racine, Wis	7-28
8- 8•	Dredging, etc., Chicago, Ill	7-14
8- 8•	Canal lock supplies, Panama	7-14
8- 8•	Stone, Oswego, N. Y	7-14
8- 8•	Ry. grading and bridges, El Paso, Tex.	6-30
8- 9	Pier, Colchester, Ont	7-21
8-10•	Dredge, Philadelphia, Pa	7-14
8-10	Ditch, Harlan, Iowa	7-28
8-11•	Hire of dredging plant, Detroit, Mich	7-14
8-13	Forgings, Washington, D. C	7-28
8-16•	Dredging, Buffalo, N. Y	7-21
8-16•	Dredging, Erie, Pa	7-21
8-20•	Dredging, etc., Larchmont, N. Y	7-28
8-22•	Removal of wreck, Plymouth, Mass	7-28
8-22	Dredging, Stockton, Me	7-28
8-23	Barge canal, Albany, N. Y	7-28
8-24•	Dredging, etc., Jacksonville, Fla.	7-28
9- 6	Ditch, etc., Clark, S. Dak	7-28
9- 8	Gun turrets, Washington, D. C	7-28
9-16•	Lock machinery, Panama	7-21
9-20	Gun turrets, Washington, D. C	7-28

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8-10	Steam engr., Cleveland, Ohio	7-14
8-10	Asst. steam engr., Cleveland, Ohio	7-14
8-10	Aid, Washington, D. C	7-28
8-24	Draftsman, Washington, D. C	7-28
8-24	Asst. Engr., New York, N. Y	7-14

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at the office of The Engineering News Publishing Co., 220 Broadway, New York.

7-30	Condensers, etc., New York...(S)	7-14
8- 1•	Viaduct, Barberton, O..(P. & S.)	7- 7
8- 8•	Railway, New Mexico..(P. & S.)	6-30
8-16•	Dredging, Buffalo, N. Y......(S.)	7-21
9- 6•	Viaduct, Toronto, Ont...(P. & S.)	7-28

THE LUIFWIETER PUMPING ENGINE CO., of Rochester, N. Y., has opened a branch office at 1653 Monadnock Block, Chicago, in charge of Mr. E. D. Williams.

THE ORENSTEIN-ARTHUR KOPPEL CO., Koppel, Pa., paid a dividend for the year 1909 of 13% of its capital of $6,500,000. The surplus fund of this company now amounts to $1,800,000.

THE C. A. WOOD PRESERVER CO., Austin, Texas, announces that it has opened a branch office in Indianapolis in charge of Mr. F. D. Rusling. The company has also arranged to have shipments made from Chicago as well as New York, New Orleans, St. Louis, San Francisco, Salt Lake City and Denver.

THE WAGNER ELECTRIC MFG. CO., St. Louis, Mo., has appointed Mr. J. F. Jones manager of the new office opened for this company in the Woodward Bldg., Birmingham, Ala. Mr. Jones has had several years' experience with various electric machinery manufacturing companies of the United States.

PORTLAND CEMENT DEALERS in Michigan, Indiana and Ohio filed a complaint July 11 with the Interstate Commerce Commission against the rates on cement in Central Freight Association territory. Undue preference is alleged to be shown on shipments of cement from the Trunk Line Association territory to Central Freight Association territory and a commodity rate is asked.

ELECTRIC RIVETERS DESIGNED for shop use have recently been placed on the market by the Electric Machinery Sales Co., Milwaukee. It is stated that with the use of these riveters from 4,000 to 20,000 pieces per can can be handled by inexperienced laborers. Three sizes of the pedestal type are made, weighing from 125 to 360 lbs. The motors of these riveters are self-contained, but a belt driven model can be supplied.

THE C. O. BARTLETT & SNOW CO., Cleveland, Ohio, manufacturers of elevating and conveying machinery, have recently leased additional property on Columbus St., near the present works. This is a manufacturing plant having about 76,000 sq. ft. of floor space with a complete power plant and railroad facilities. New machinery has been installed and the company will start operations in the new plant at once.

THE GREEN FUEL ECONOMIZER CO., Matteawan, N. Y., has awarded the contract of rebuilding its fan shop at Matteawan, N. Y., almost totally destroyed by fire several weeks ago, to the Berlin Construction Co. The new shop will be ready for occupancy about Aug. 15, and the floor area will be considerably greater than that of the old one. Provision has been made for suitable testing rooms for making exact determinations regarding the capacity of fans.

THE EDGAR ALLEN AMERICAN MANGANESE STEEL CO., McCormick Building, Chicago, which has been organized recently, announces that it has purchased the works of the American Brakeshoe & Foundry Co. at Chicago Heights, Ill., and the Tropenas Steel Co., of New Castle, Del. It will carry on the manganese steel business of these two companies and the American branch of Edgar Allen & Co. (of Sheffield, England). The two plants are being enlarged and improved so as to double their capacity.

APPROPRIATIONS FOR THE UNITED STATES GEOLOGICAL SURVEY are carried in an act of Congress popularly called the "sundry civil bill." The act making appropriations for the fiscal year ending June 30, 1911, contains items for the Survey's work aggregating $1,175,040. This is $232,350 less than the amount appropriated for the Survey for the fiscal year 1910, but the work of analyzing and testing fuels and the investigations of the causes of mine accidents were transferred from the Survey to the newly created Bureau of Mines, and the tests of structural materials were transferred from the Survey to the Bureau of Standards, with consequent transfer of appropriations. An increase of $75,000 was made in the appropriation for geologic work and of $50,000 for stream gaging.

THE RAILWAY MILEAGE of the world has again been computed by "Archiv für Eisenbaknwesen" and is given at 611,478 miles on Dec. 31, 1908. The statistics for 1907, printed in Engineering News Dec. 2, 1908, gave the total mileage at the end of 1907 as 594,842. The figures of mileage for the principal geographical grand divisions for both years are shown in the accompanying table. It is significant to note that the increase in mileage has been steady during the last five years. In 1908 there was added to the railway mileage of the world 16,636 miles; in 1907, 14,627; 1906, 17,394; 1905, 12,039 and in 1904, 16,508. These figures seem small when it is recalled that in 1887 12,876 miles of new line were added in the United States alone. The increase in America, last year, was nearly double that of all the rest of the world combined, but South America furnished a large share of this in proportion to the total mileage. The awakening of China is shown in the returns of new railway mileage, for nearly one third of the new line constructed in Asia was built in China. The new railway built there amounted to 835 miles. The Celestial Empire had, at the end of 1908, 4,997 miles of main track.

Mileage of the Railways of the World.

	Mileage open at the end of		Increase.
	1908.	1907.	
Europe	202,109	199,346	2,763
Asia	58,813	56,284	2,529
Africa	19,211	12,518	693
Total Eastern Hemisphere	280,133	274,148	5,985
America	313,385	302,928	10,457
Australia	17,960	17,766	194
Total Western Hemisphere	331,345	320,694	10,651
Grand total	611,478	594,842	16,633

TRADE PUBLICATIONS.

SECOND-HAND MACHINERY.—Willis Shaw Machinery Co., Chicago. Paper; 6 × 3¼ ins.; pp. 28.

This is a trade list of machinery and contractors' plant offered for sale, including steam shovels, dredges, cranes, concrete mixers, stone crushers, engines and boilers, compressors, locomotives, grading machines, dump cars, pile drivers, drills, electrical equipment, etc.

RESERVOIR WATERPROOFING.—The Canadian Mineral Rubber Co., Ltd., 1 Toronto St., Toronto, Ont., Can. Stiff paper; 6¼ × 8¼ ins.; pp. 16; illustrated.

The larger part of this pamphlet is devoted to an illustrated description of the Obispado distributing reservoir of the water-works of Monterrey, Mex. The reservoir is treated with "Pioneer" Reservoir Waterproofing Asphalt, supplied by this company.

TRACKLAYING MACHINE.—Hurley Tracklaying Machine Co., Fisher Building, Chicago. Paper; 5 × 9 ins.; pp. 16; illustrated.

In the Hurley machine, the conveying and handling of the rails, ties, etc., is done by power, and the material is delivered ahead of the construction by means of a long cantilever truss. The operations are described and several testimonials are quoted. Among the illustrations is a long folding plate of a line drawing showing the train of supply cars and the tracklaying machine.

VALVE GEAR FOR LOCOMOTIVES.—Pilliod Brothers, Nicholas Building, Toledo, Ohio. Paper; 8¼ × 6¼ ins:; pp. 8; illustrated.

The Pilliod valve gear is notable in having fixed points of rotation and dispensing with sliding blocks or links. The design described is a modification of that which has been applied to a number of locomotives, and may be operated from the crosshead, or from the crosshead and crank. The working of the gear is described in detail.

LINK-BELTS AND LINK-BELT MACHINERY.—Link-Belt Co., Chicago and Philadelphia. Cloth; 6¼ × 9¼ ins.; pp. 400; illustrated.

The greater part of this volume is devoted to dimension lists and price lists of link belts for conveying and power transmission purposes, and the numerous parts and appliances used in connection with these belts. There are also a number of views of coal and freight handling plants equipped with apparatus of this kind. Belt and spiral conveyors, shafting, pulleys, friction clutches, gearing, rope transmission, etc., are included also.

RAILWAY CROSSING SIGNALS AND ANNUNCIATORS.—Hoeschen Mfg. Co., Omaha, Neb. Paper; 5¾ × 9 ins.; 2 pamphlets; pp. 12 and 8; both illustrated.

A "batteryless" system of magneto-mechanical railway signal apparatus is this company's specialty, the power used being generated by the depression of the track rail, which movement is communicated to the instrument. The apparatus is used to operate crossing bells or semaphores, and for annunciators to indicate at a signal tower, etc., when a train enters or passes out of a certain block or section.

SIGNALS AND SWITCHES FOR ELECTRIC RAILWAYS.—The Safety Switch & Signal Co., Saugatuck, Conn. Paper; two pamphlets; each 3¾ × 8½ ins.; pp. 4; illustrated.

The signals are automatic block signals (using semaphore and colored lights at each signal) arranged for permissive blocking, so that a number of cars can proceed in one direction, each being cautioned as to the presence of a car in the block, while the "stop" signal remains displayed against cars in the opposite direction. The signals are operated by means of the trolley wire and car trolley. The Acme electric automatic switch is for street railways, and the apparatus is enclosed in an iron box set in the paving. The operating lever is controlled by magnets. The switch acts automatically for one direction, and is set for the opposite direction by the motorman applying power at the controller.

STREET RAILWAY SUBWAY AND GENERAL ENGINEERING CONSTRUCTION WORK.—Geo. W. Jackson (Incorporated), 754 Jackson Boulevard, Chicago. Paper; 9 × 12½ ins.; pp. 86; illustrated.

A description of a shallow subway system for street cars, patented by George W. Jackson and proposed by him for use in Chicago, occupies about half of this book and is accompanied by numerous illustrations. His patents on steel sheet piling, steel centering and lagging for tunnels, lining for shafts, excavating machines and aerial tramways are also shown. The remainder of the book is given up to reproductions of plans and photographs of several of the large engineering construction works carried out by this well-known contracting firm. A list of contracts now under way show a total contract amount of nearly $6,000,000. The book is printed in first-class style on heavy calendered paper.

For other Proposal Advertisements see pages 51, 52, 53, 54, 56 of Advertisements and Construction News page 48.

PIER.

COMMONWEALTH OF MASSACHUSETTS.—Board of Harbor and Land Commissioners.—State House, Boston, July 27, 1910.—Sealed bids or proposals for building a stone pier or wharf, to be known as Pier No. 6, South Boston, and extending Northern Ave. on the Commonwealth's Flats at South Boston, will be received by the Board of Harbor and Land Commissioners at Room 131, State House, Boston, Mass., until 2 o'clock P. M., Friday, September 2, 1910, and then and there will be publicly opened and read. The work to be done is the building of a solid pier or wharf 1,200 feet long and 300 feet wide, the solid filling to be enclosed by a granite sea-wall, 41 feet high and 2,700 feet long; also the filling of a street 100 feet wide and about 850 feet long, the outer face to be enclosed by a granite sea-wall about 645 feet long on a pile foundation. The quantities of material to be furnished and work to be done are substantially as follows:

Dredging, 414,600 cubic yards.

Filling with dredged material, 274,600 cubic yards.

Gravel to be furnished, 94,000 cubic yards.

Riprap and stone back-ballast, 40,200 cubic yards.

Spruce piles, 1,295 piles.

Concrete, 730 cubic yards.

Stone masonry below low water, 45,750 cubic yards.

Stone masonry above low water, 14,100 cubic yards.

Bulkhead, 95 linear feet.

Fenders on face of wall, 2,700 linear feet.

All proposals must be made upon blank forms which, together with information in regard to the work, may be obtained at the office of the Board, where plans* and specifications may be seen. Each bidder will be required to give to the Board satisfactory assurance of his competency, experience and responsibility. The right is reserved to reject any and all bids and to waive any defect or informality, at the discretion of the Board. GEORGE E. SMITH, SAMUEL M. MANSFIELD, HEMAN A. HARDING, Harbor and Land Commissionrs; FRANK W. HODGDON, Chief Engineer.

*Plans and specifications will be on file in the office of the Engineering News.

PAVING.

Greenwich, Conn.

Sealed proposals for the paving of Putnam Avenue from the Eastern boundary of the Borough to its Western boundary will be received by the Warden and Board of Burgesses of the Borough of Greenwich at the office of the Borough Clerk, Rooms 21, 25, in the Abrams building, on or before Tuesday, August 9, 1910, at five o'clock p. m.

Said proposals to be for Brick, Wood Block or Bitulithic.

Plans and specifications for the paving may be seen at the office of S. E. Minor, Civil Engineer, Room 5, Greenwich Trust Company Building.

Dated, Greenwich, Conn., July 19, 1910.

BENJAMIN E. KELLEY.
Borough Clerk.

PROPOSALS FOR ELECTRICAL EQUIPMENT, DEPARTMENT OF AGRICULTURE, WASHINGTON, D. C., JULY 18, 1910.—Sealed proposals for furnishing and installing, on Forest Service foundations, electrical equipment for driving a 500-horsepower ground wood pulp grinder in the Forest Service Ground Wood Laboratory will be received at Madison, Wisconsin, until 2:00 p. m., August 12, 1910, and then opened. Plans and specifications furnished on application to Forest Products Laboratory, Madison, Wisconsin. Envelopes containing proposals should be indorsed "Proposals for electrical equipment" and should be addressed to "Forest Products Laboratory, Madison, Wisc." JAMES WILSON, Secretary.

SIDEWALKS.

Paducah, Ky.

Sealed proposals will be received by the Board of Public Works of the City of Paducah, Kentucky, until [illegible] P. M., August 23rd, 1910, on the following work:

Contract "A" (Approximate Quantities).	
Granite curbing	[illegible]500 lin. ft.
Concrete gutter	[illegible]800 lin. ft.
Concrete walks	[illegible]000 sq. ft.
Concrete driveways	[illegible]00 sq. ft.
Cast-iron drain pipe	[illegible]500 lin. ft.
Sewer (10″ to 24″ pipe)	[illegible]50 lin. ft.
Contract "B" (Approximate Quantities).	
Granite curbing	1,[illegible]70 lin. ft.
Concrete gutter	1,[illegible]35 lin. ft.
Concrete walks	[illegible] sq. ft.
Concrete driveways	[illegible] sq. ft.
Sewer (10″ to 12″)	[illegible] lin. ft.
Contract "C" (Approximate Quantities).	
Granite curbing	6,[illegible]0 lin. ft.
Concrete gutter	6,[illegible] lin. ft.
Concrete walks	31,[illegible] sq. ft.
Concrete driveways	[illegible] sq. ft.
Cast-iron drain pipe	5[illegible]0 lin. ft.
Contract "D" (Approximate Quantities).	
Granite curbing	7[illegible] lin. ft.
Concrete gutter	7[illegible] lin. ft.
Concrete walks	3,6[illegible] sq. ft.
Concrete driveways	1[illegible]0 sq. ft.
Contract "E" (Reinforced Retaining Wall), (Approximate Quantities).	
Concrete	22[illegible] cu. yds.

The bids on each of the above contracts must be accompanied by a certified check on some Bank of Paducah, Ky., for $250.00, which will be returned to the unsuccessful bidders. The successful bidder will be required to execute bond to the sum of 40% of his bid, for the faithful performance of his contract, to extend during the construction period, and after the work is completed and accepted to execute a maintenance bond for 25% of the cost of the work, for a period of five years.

The Board of Public Works reserves the right to reject any and all bids.

For plans and specifications, address

L. A. WASHINGTON,
City Engineer.

EXCAVATING.

City of Barre, Vt.

Sealed proposals will be received at the office of the City Clerk until 7 p. m., of Thursday, the 11th day of August, 1910, for the excavation of a new river channel, building walls at the sides, riprapping the bottom, refilling the old river bed, building about 500 lineal feet of culvert and doing other work incidental to moving the course of the river in Barre, Vt.

All bids must be made out upon blank forms to be obtained of the City Engineer of the said City of Barre, Vt., and must give prices proposed, both in writing and figures, and be signed by the bidder with his address. All bids must be accompanied by a certified check for Five Hundred Dollars ($500), payable to the City of Barre, Vt., said check to be returned to the bidder unless he fail to execute the contract, should it be awarded to him.

Plans and specifications can be obtained of the City Engineer of Barre, Vt., on request.

Bids will be publicly opened and read at a meeting of the City Council held on the evening of August 11, 1910. The said City Council reserves the right to reject any or all bids.

JAMES MUTCH, Mayor.

PAVING.

Birmingham, Ala.

Sealed proposals will be received at the office of the undersigned at eleven o'clock a. m., Wednesday, August 17th, on approximately 128,000 square yards street paving. Bids will be received on Brick, Granitoid, Bitulithic, Asphalt and Kentucky rock asphalt. Specifications can be obtained from the City Engineer after August first.

MAURY NICHOLSON,
City Engineer.

Situations Open

WANTED.—Draftsman with experience in designing and detailing structural steel office buildings. Good opportunity for young man. Apply, stating age, salary expected and experience. Address, "P. B. 4," Engineering News, New York. 4-tf